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THE FUNDAMENTALS OF
SOVIET RAZVEDKA
(INTELLIGENCE/RECONNAISSANCE)

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THE FUNDAMENTALS OF SOVIET RAZVEDKA
(INTELLIGENCE/RECONNAISSANCE)

by

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January, 1989

The views expressed here are those of the
Soviet Army Studies Office. They should not
necessarily be construed as validated threat doctrine.

Introduction

Intelligence, simply defined as knowledge of the enemy and his intentions, is seldom a decisive factor in war. It does not alter the strength of contending armies and the overall war aims of contending states, and its may have little effect on the planning and conduct of operations. A force which lacks good intelligence may still succeed because of its strength, sound planning, and military efficiency. The converse is also true.

Sound intelligence, however, can affect a nation's decision to go to war in the first place; and, once that nation is at war, it can reveal enemy intentions and dispositions. While providing a foundation for sound planning, it also forms a basis for conducting and verifying the effects of deception. Consequently, intelligence provides leverage with which to accentuate the positive effects of military actions, be they offensive or defensive. *Keywords: Military intelligence, Russia, (Soviet)*

Intelligence collection, analysis, and exploitation is a difficult process, made more so by the fog of war and by chance, which makes its effects even less predictable. Throughout the twentieth century, the growing complexity, scale, and technological content of war have provided greater opportunity for intelligence collection, while, at the same time, complicating the process of analyzing and exploiting its effects.

Few nations have developed a healthier respect for the relationship between intelligence and warfare than has the Soviet Union. The four years of warfare on the Eastern Front during the Second World War, known

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by the Soviets as the Great Patriotic War, were unprecedented in scale and intensity. From the commencement of Barbarossa on 22 June 1941 to the end of the European War in May 1945, intelligence played a significant role in the course and outcome of operations. Most Westerners have only a sketchy awareness of that role. The Soviet intelligence failure of June 1941 and the apparent intelligence success at Kursk in 1943 have received attention in numerous works. Yet the appreciation of both has been, at best, superficial, replete with generalizations which have characterized most descriptions of war on the Eastern Front.

The Soviets have acknowledged that serious intelligence failures played a significant role in the outcome of operations during the first two years of war. The Soviets, however, learned from those failures, and, by the summer of 1943, they had created an effective, complex system for intelligence collection and processing. This new system bore fruit in the last two years of war, during which effective Soviet razvedka provided the basis for successful Soviet deception and for operational and strategic victory.

The Soviets emerged from the war with a healthy respect for all types of razvedka. While appreciating and employing more sophisticated means such as air, agent, and radio, they also emerged from war with an understanding that effective tactical razvedka, the sum of often petty and mundane acts, could produce profound results. On the basis of these judgements, the Soviet built their post-war razvedka system. That post-war system has accentuated war-time trends. While keeping pace with

technological advances in intelligence collection, the Soviets have not forgotten, and still stress, the more mundane low-level razvedka techniques.

Recent technological changes, as well as the changing nature of the battlefield, have produced intensified Soviet concern for razvedka. The emergence of high-precision weaponry, the urbanization of terrain, and other factors have accentuated the importance of time in battle. The Soviets realize that rapid maneuver and effective command and control are the keys to success in contemporary battle. So also is effective and timely collection and processing of intelligence data. For the Soviets, the latter has become a principal challenge of the 1980s and 1990s. Thus the Soviets will emphasize new razvedka techniques such as employment of reconnaissance-artillery fire groups and will emulate the Western concept of the recce-strike complex. While doing so, they will also emphasize what experience has convinced them is most effective--the simple, basic razvedka tasks which have proved so effective in the past.

This paper surveys the contemporary Soviet approach to razvedka at all levels of war. It highlights those basic principles to which the Soviets subscribe and introduces the procedures and means by which they strive to achieve intelligence successes. This slim volume is designed to provide an adequate base upon which more comprehensive research on the subject can be conducted.

The Nature of Razvedka

As is so often the case, the Soviets use a single generic term, razvedka, to describe all actions necessary to achieve a better understanding of the enemy. The English language, however, applies distinctive terms such as "intelligence" and "reconnaissance" to describe collection and analysis of information concerning the enemy at various levels. Soviet and U.S. terminology differ more than just semantically. The Soviets view razvedka as a single process encompassing mundane actions at the lowest combat level as well as highly sophisticated procedures used at the national level to collect and process information on enemies or potential enemies. The term "razvedka" means both intelligence and reconnaissance and, with an appropriate adjectival qualifier, it pertains to every possible means of intelligence collection and analysis.

Soviet razvedka treats reconnaissance as the process and intelligence as the product. The two are closely interrelated and equally important, and only context distinguishes between them. The Soviets define military razvedka as:

the obtaining, collection, and study of data about military-political conditions in individual countries and in probable or actual enemy coalition nations: their armed forces and military-economic potential; the compositions, dispositions, condition, nature of actions, and intentions of groups of forces; and also about the theater of operations.'

Razvedka, as well as defense against weapons of massive destruction [zashchita ot oruzhiia massivogo porazheniia-ZOMP], deception [maskirovka], engineer protection, troop security, and rear area

protection, is included under the rubric "protecting combat actions [obespechenie boevykh deistviy]." Collectively, these protective functions preserve the combat readiness of forces and facilitate their successful use in combat while simultaneously reducing the effectiveness of enemy forces. Commanders and staffs at all levels are responsible for conducting razvedka at all times, in all situations, and under all circumstances. Razvedka can be strategic, operational, or tactical, depending on its scale and purpose; and, because activities at all three levels are closely interrelated, success at high levels depends directly on the efficiency and effectiveness of like measures at lower levels.

At the highest level, strategic razvedka examines enemy planning and conduct of operations in a theater of operations or in war as a whole. The High Command and national political authorities organize continuous strategic razvedka to determine:

the compositions, condition, and distribution of enemy armed forces in a theater of military operations; views on the nature and means of conducting war; enemy plans for preparing (conducting) war; military-economic potential; the condition of and prospective development of arms and military equipment, especially weapons of mass destruction; measures for immediate preparation for unleashing war; and preparation of the theater of military operations.

The Soviets believe they must centrally control strategic razvedka assets to achieve effective results in a world potentially threatened by nuclear war.

Operational razvedka employs "an aggregate of measures for the gathering and study of information about actual or probable enemies in the region of military operations in the interests of preparing and

successfully conducting operations."⁴ Razvedka activity at the operational (front and army) level seeks information concerning: preparations for war; prospects for the use of nuclear weaponry; the probable nature of operations; the presence and location of enemy nuclear weapons, fire support systems, radio-electronic means and control posts; the location and likely actions of aircraft, anti-aircraft, and anti-rocket defenses; the system of rear area support; the political-morale condition of enemy forces; and other information about the area of operations required by the commander.

While strategic razvedka knows no geographical limits, the scope of operational razvedka varies with the size of the theater of military operations (TVD), the size and configuration of the force, and the nature of its assigned missions. Regardless of the dimension of the TVD, razvedka is ubiquitous throughout its depth and breadth, both before and during hostilities. At front and army level, as at all other levels, razvedka is a command function and responsibility.

Tactical razvedka, organized at all levels below army, is responsible for obtaining and analyzing information about the enemy before and during battle [boi]. It is "conducted simultaneously on the land, in the air, and at sea by specially designated razvedka organs, by aircraft (helicopters), and by ships."⁵ Tactical razvedka organs are responsible for determining enemy strength, dispositions, combat readiness, manner of operations, and intentions as well as other tactically important information and specifics regarding terrain and

obstacles. The depth of tactical razvedka varies with terrain, the size of the force, and its assigned missions.

The Soviets classify razvedka by the type and method of intelligence collection. Types of razvedka, which reflect the specific missions to be accomplished, the force designated to conduct these missions, and how that force conducts its missions, today include: agent [agenturnaia], special [spetsial'naia], radio [radiorazvedka], radio-technical [radiotekhnicheskai], ship [korabel'naia], troop [voiskovaia], artillery [artilleriiskaia], engineer [inzhenernaia], radiological [radiatsionnaia], chemical [khimicheskai], biological [biologicheskai], radio-location [radiolokatsionnaia], topographical [topograficheskai], mine [minnaia], rear area [tylovaia], and technical [tekhnicheskai].⁶ Although each is separate and distinct, all types are centrally controlled and coordinated at whatever level of command they are employed.

Functionally, intelligence collection methods today include: Combat action of forces, observation [nabliudenie], eavesdropping [podslushivanie], photography [fotografirovanie], interception [perekhvataia rabota], direction finding [pelengatsiia], radio-electronic means [radioelektronnye sredstva], sweeps [poisk], raids [nalet], ambushes [zasada], reconnaissance in force [razvedka boem], interrogation of civilians [opros], interrogation of prisoners [dopros], thermal [teplovaia], magnetic-metrical [magnitometricheskai], radio-thermal [radioteplovaia], and study of documents.⁷ Closely related to these methods is the Soviet concept of the commander's personal

reconnaissance of the battlefield, which they refer to as rekognostsirovka.⁸

This razvedka system relies on ground intelligence collection by combat units and on artillery, engineer, radiological, chemical, biological, and topographical razvedka at the tactical level; on air, agent, radio, and reconnaissance-diversionary razvedka at the operational level; and on long-range air, radio, and agent razvedka at the strategic level.

Although the Soviets catalogue a wide array of razvedka types and methods, often employing sophisticated technological equipment, and emphasize the systematic and scientific planning and conduct of razvedka, they continually emphasize the human factor as the most critical element. They believe man, using his judgement, always is more important than technology.

Regardless of type and method, the Soviets believe razvedka must be continuous, active, timely, authentic, and, above all, organized with a clear goal in mind. Its focus must correspond closely with the overall aim of any strategic, operational, or tactical plan to provide unity of purpose necessary for all intelligence fragments to form a meaningful and useful mosaic of the enemy. The scope of that mosaic and the intelligence effort which produces it vary from operation to operation. The depth of razvedka and the amount of data required depends directly on the scale of the military operation, the complexity of a force's combat missions, the nature of the terrain, and the strength and depth of enemy dispositions. Razvedka must also be flexible enough to adjust

to changing combat conditions. Otherwise, the best razvedka plan can become victim of what the Soviets call "shablon [pattern or stereotypel." Stereotypical action defeats the purposes of razvedka by conditioning a force to become a victim of its own misperceptions.

Commands at every level perform razvedka through their chief of staff and intelligence officer, who also serves as chief of reconnaissance. Today military razvedka is controlled throughout the entire Soviet force structure from the top down by the head of the Main Intelligence Directorate [Glavnoe razvedyvatel'noe upravlenie-GRU] of the General Staff. Intelligence work at lower levels is carried out by the intelligence directorate [razvedyvatel'noe upravlenie-RU] at TVD and front level, by the intelligence department [razvedyvatel'nyi otdel-RO] at army and by the intelligence officer at division, regiment, and battalion. At each level, razvedka organs perform specific functions which have evolved over time but which, by virtue of centralized control, form a single unified effort.² Razvedka is the first mechanism in a carefully orchestrated command and control cycle [upravlencheskii tsikl]. Effective razvedka assists the commander in reducing time spent gathering and collecting information on the enemy and, hence, creates conditions conducive for effective planning; smooth conduct of operations; and, ideally, achievement of battlefield victory.

Troop Razvedka

The most fundamental type of razvedka involving the tactical and, to some extent, the operational level is troop razvedka. This may be

conducted either prior to or during combat, while a force is moving forward into battle or when it is fully deployed for combat. When preparing to join battle or during the conduct of battle, Soviet forces are specifically arrayed to meet whatever situations arise. The Soviets term these arrays "march formation [pokhodnyi poriadok]" and "combat formation [boevoi poriadok]." The former is used on marches, during an approach to battle, during commitment into battle, and during exploitation and pursuit phases of an operation. The latter is used when forces prepare to engage and actually engage a defending enemy force. Each of these arrays (or formations) includes specific elements assigned to perform separate functions. Taken together, their actions form a logical and cohesive approach to resolution of combat situations, an approach designed to produce successful results. One of the most important military functions performed on the march or when deploying for combat is the reconnaissance function.

By Soviet definition, march formation is "the formation of subunits [battalions], units [regiments], formations [divisions], and groups of ships, with their reinforcing means, for the carrying out of a march...."¹⁰ March formations facilitate rapid movement, quick deployment of forces into pre-combat or combat formation, and reliable and stable command and control.

The myriad of specialized functional units which Soviet forces employ on the march and in combat is often confusing to all but the expert observer. Yet each of these functional units plays a critical role in the conduct of military operations. Although reconnaissance

units represent but one of these functional categories, an understanding of the role of all of these units is necessary to form an adequate context for identifying and understanding the particular unit performing razvedka. Thus the extended passages which follow describe the interrelationships of all of these functional units in order to better focus on the issue of where specific reconnaissance units fit into those well-ordered march and combat arrays.

The march formation of combined arms formations [divisions] and units [regiments] consists of several distinct elements including a forward detachment, march security forces, a main force, and rear service units and subunits. Each of these elements performs a distinct military function. The forward detachment [peredovoi otriad] is the lead combat element of the force; march security forces [pokhodnoe okhranenie] perform reconnaissance [razvedka] and provide protection [obespechenie] for the main body; the main body [glavnaia sila] represents the principal combat element of the force; and rear service elements [tylovye chasti] sustain all force operations.

A wide variety of functional units perform combat, reconnaissance, and protection missions in support of the main force. These include:

<u>Function</u>	<u>Force</u>
Combat	forward detachment [<u>peredovoi otriad-PO</u>] enveloping detachment [<u>obkhodiashechii otriad</u>]
Reconnaissance	reconnaissance detachment

[razvedka]

[razvedyvatel'nyi otriad-RO]

reconnaissance group

[razvedyvatel'naia gruppa-RG]

separate reconnaissance patrol

[otdel'nyi razvedyvatel'nyi dozor-
ORD]

reconnaissance patrol

[razvedyvatel'nyi dozor-RD]

Protection

advance guard

[avangard]

advance party (lead march party)

[golovnaia pokhodnaia zastava-GPZ]

flank party (flank march party)

[bokovaia pokhodnaia zastava-BPZ]

rear party (rear march party)

[tylovaia pokhodnaia zastava-TPZ]

Others:

Protection Against

chemical reconnaissance patrol

Weapons of Massive

[khimicheskii razvedyvatel'nyi

Destruction [ZOMP]

otriad-KhRO]

Engineer Protection

movement support detachment

[otriad obespecheniia dvizheniia-OOD]

Sentry Security

outpost detachment (pickets)

[storozhevoi otriad]

The forward detachment is a unique organization specifically designated to fulfill combat missions which, if successfully performed, contribute to the success of the force as a whole. It normally leads the march formation and will, in turn, field its own reconnaissance and advance, flank, and rear security elements.

The reconnaissance task of a force in march formation is fulfilled by one of several types of reconnaissance units, differentiated primarily by size. Combined arms formations or units employ a reconnaissance detachment (RO) to obtain information about the enemy and the terrain both on the march and in anticipation of a meeting engagement. The reconnaissance detachment usually consists of a motorized rifle, tank, or reconnaissance company of a regiment or a motorized rifle, tank, or reconnaissance battalion of a division, reinforced by artillery, tanks, sappers, chemical reconnaissance forces, and other specialized units as required. It operates to a depth of from 35 to 50 kilometers and can cover a sector of up to 7 kilometers wide. A smaller version of the reconnaissance detachment is the reconnaissance group (RG) which is usually of reinforced company size.

Reconnaissance detachments can also form and employ reconnaissance patrols (RDs) in up to reinforced platoon strength operating at varying distances (normally 3-15 kilometers) from its parent reconnaissance unit. In addition, formations and units can employ separate reconnaissance patrols (ORD) in lieu of, or in addition to, regular reconnaissance detachments or groups. The separate reconnaissance patrols of up to reinforced platoon strength operate analogously to the

other large reconnaissance units.¹² The mission of reconnaissance units is clearly distinct from that of the forward detachment. The function of the latter is to conduct combat, while the former is expected to avoid combat.

While reconnaissance units act as the eyes and ears of a force on the march, other units provide protection for the main force. Protection is subdivided by area into front, flank, and rear and involves units which provide march security for the main force. The most important of these units is the advance guard which deploys forward in anticipation of a clash with the enemy.¹³ The advance guard usually consists of a regiment (from a division) or a battalion (from a regiment). Its missions are to prevent an enemy surprise attack on the main force, forestall penetration by enemy reconnaissance into the vicinity of the main force, and create favorable conditions for the deployment of the main force and its introduction into battle. While performing its mission, the advance guard can engage and destroy enemy units but only if that combat does not inhibit fulfillment of its primary task.

The advance party (GPZ), a smaller version of the advance guard, is used in lieu of an advance guard by regiments marching along separate routes or by advance guards and forward detachments.¹⁴ It normally consists of a motorized rifle or tank platoon or company which moves along the march route in advance of its parent unit. Its missions are similar to those of an advance guard.

Flank parties (BPZ) and rear parties (TPZ) complete the all-round security for a force on the march.¹⁵ The flank party, of reinforced motorized rifle or tank company size, is sent out a distance of up to five kilometers by forward detachments, advance guards, and main force regiments on the march to protect against enemy surprise attack, to frustrate enemy reconnaissance, and to facilitate deployment of its parent force. In turn, the BPZ dispatches security and reconnaissance patrol vehicles a distance of two kilometers. The rear party, in reinforced platoon or company strength, serves the same purposes as the flank parties. These security forces protect both the forward detachment and main force column. In performing their functions they are subject to definite constraints, in particular regarding their involvement in any combat that would prevent accomplishment of their primary mission.

The Soviets employ other specialized elements during the conduct of a march. These include movement support detachments, chemical reconnaissance patrols, and outpost detachments. The movement support detachment (OOD) is a temporary formation of variable size, tailored to the situation. It normally consists of engineers, motorized rifle, tank, and other subunits and is tasked with preparing and maintaining march routes during all march situations.¹⁶ The OOD conducts route reconnaissance, builds and repairs routes, and prepares passages across manmade and natural obstacles. When conducting its missions, the OOD forms subgroups for reconnaissance, obstacle removal, road-bridge repairs, and combat security.

Chemical reconnaissance patrols (KhRD) supplement the action of regular reconnaissance units.¹⁷ They operate independently or as part of a reconnaissance or security element, a forward detachment, a movement support detachment, or a subunit tasked with securing or destroying nuclear or chemical stores. The KhRD detects radioactive, chemical, and bacteriological contamination; determines the level and type of contamination; designates the contamination area; and finds and marks routes through or around the contamination.

The least specialized of special march security elements is the outpost detachment, which is used primarily during the positioning of forces--during halts or deployment in position.¹⁸ Outpost detachments of from company to battalion strength provide security, conduct reconnaissance, and defend in designated sectors. They employ outpost parties, observation posts, and patrols to a depth of 1500 meters to protect the main force from surprise attack.

The diverse functional elements of the Soviet march formations are arrayed spatially to accomplish their primary task of insuring the main force success (figure 1). Reconnaissance elements lead, followed in turn by the forward detachment, an advance party and/or advance guard, the main force (usually organized in echelons), the rear party, and finally rear service units. The entire procession is flanked by security parties. Within this array the Soviets attempt to tailor and structure units and weaponry so that they can respond quickly in any combat situation. Often the Soviets will vary the array and structure of march formations to meet diverse needs (figure 2).

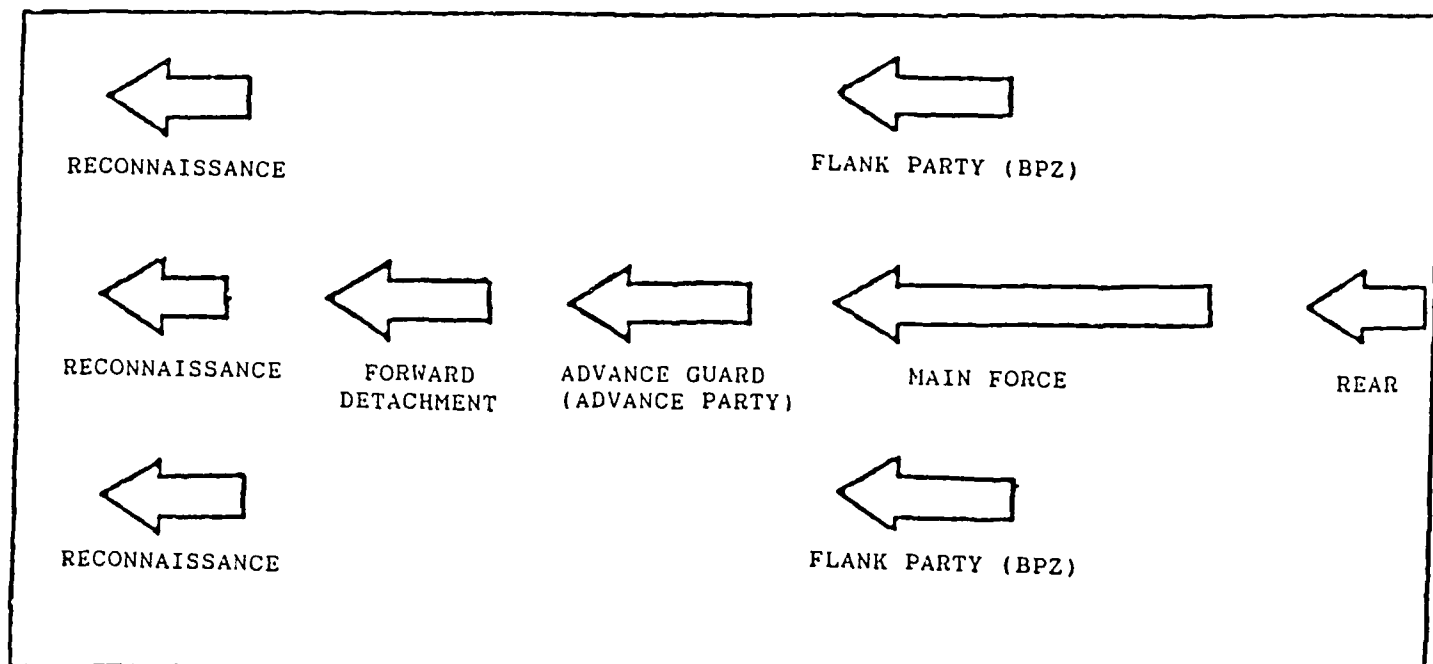


Figure 1. Principal elements of a Soviet march formation

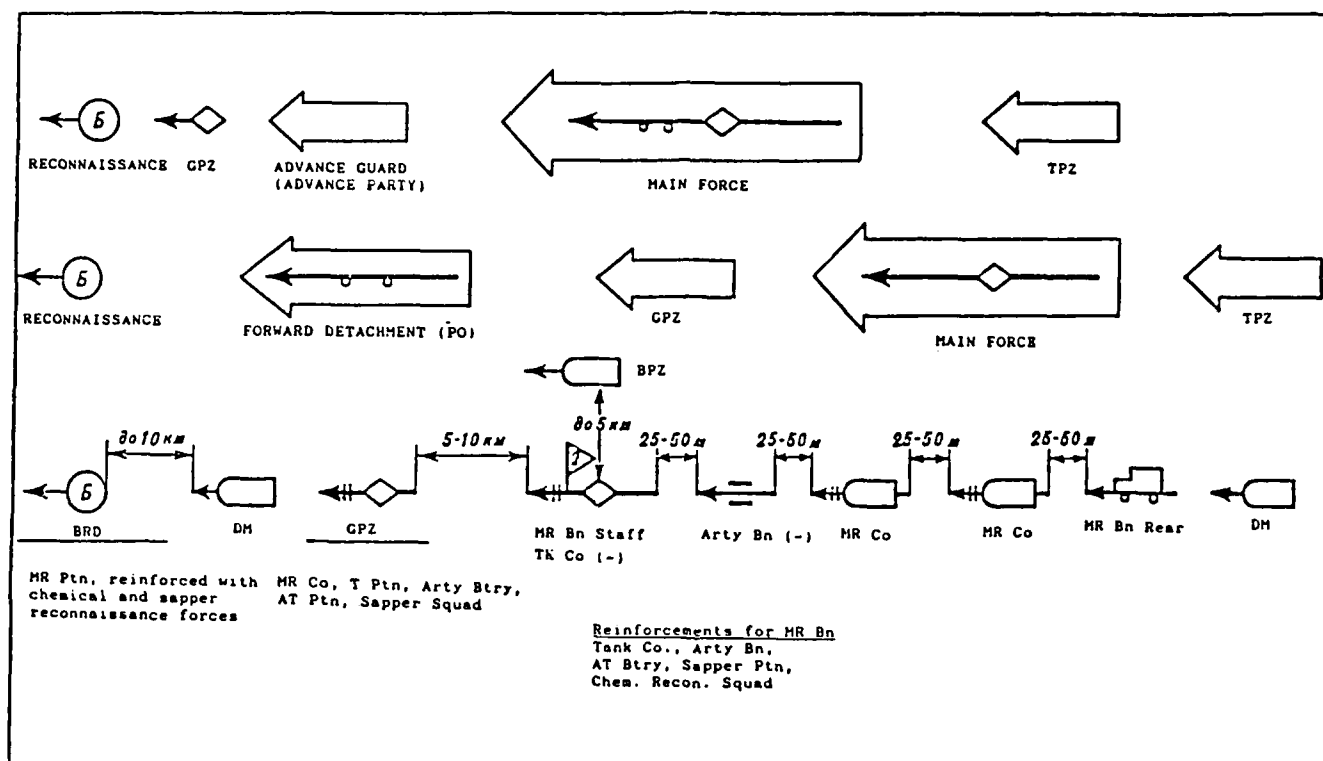


Figure 2. March formation in anticipation of a meeting engagement (variants)

Soviet combat formations display less variety than their march formations but are no less significant. The Soviets have included in their combat formations all those elements required to produce offensive success. They define combat formation as "the disposition (formation) of subunits, units, and formations and their reinforcing means for the conduct of battle."¹⁹ It is a combined arms concept whereby all types of forces fulfilling a common mission are united in a single combat formation. The combat formation "must reflect the concept of anticipated operations, provide for fulfillment of assigned combat missions, as well as firm continuous cooperation and command and control."²⁰

The elements of the combat formation include:

- forward detachment
- first echelon
- second echelon or combined arms reserve
- rocket subunits (groups)
- artillery means (groups)
- antiaircraft means (groups)
- antitank reserves
- engineer reserves
- mobile obstacle detachment
- [podvizhnyi otriad zagrazhdenii-POZ]
- specialized detachments,
ie. enveloping detachments

[obkhodiashchii otriad]

-tactical air assault landing group (party)

Virtually all elements of the combat formation are involved in combat or combat support tasks, including reconnaissance (figure 3). All first or second echelon (reserve) units engage in reconnaissance to some degree before and during battle. Certain of these elements are created solely to perform the function of tactical maneuver-- specifically the forward detachment; the enveloping detachment; the tactical air assault force; and, to a lesser extent, the mobile obstacle detachment.

The premier tactical maneuver force, the forward detachment, leads the advance while relying on its own assets and those of its parent force to conduct reconnaissance. Its combat function is often preemptive in nature. An element closely associated with the forward detachment is the enveloping detachment, formed primarily for employment in mountainous terrain, but also used in deserts, forested-swampy regions, northern regions, and other unusual terrain.²¹ The enveloping detachment usually consists of a motorized rifle subunit, reinforced by mobile antitank weapons, mortars, guns, engineer subunits, and specialized forces. Its mission is to envelop the defending enemy, strike his flank and rear, and seize and hold important objectives in the depth of his dispositions. The enveloping detachment operates in tactical coordination with forces advancing from the front and is generally supported by forces and means of the senior commander.

MOTORIZED RIFLE DIVISION COMBAT FORMATION—1984 AGAINST A FULLY PREPARED DEFENSE

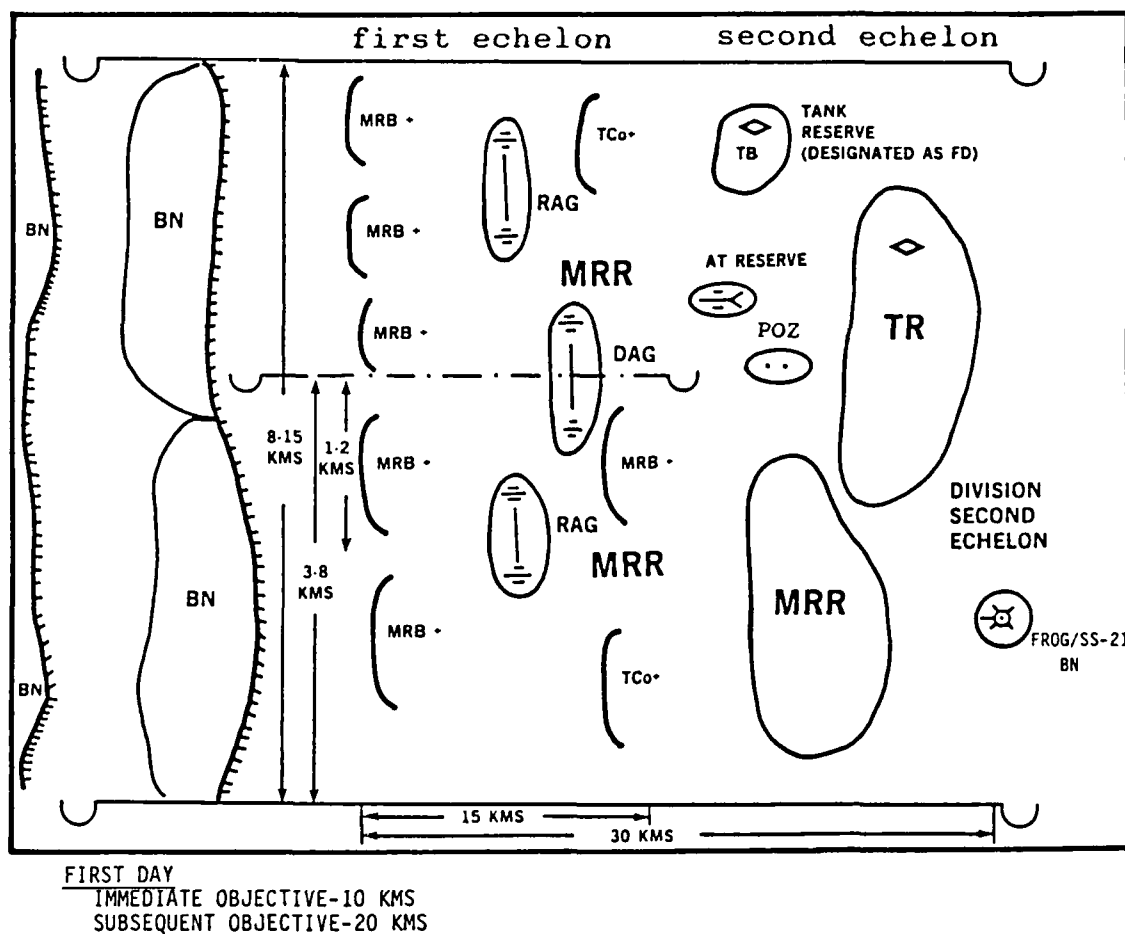


Figure 3. A Soviet combat formation

The tactical air assault group (party) consists of combined arms subunits from reinforced company to regimental strength.²² Employed by formations (divisions) and large formations (armies) its missions include the seizure and destruction of important enemy objectives in the tactical and close operational depths (ie. nuclear weapons, command and control points, communications centers) and seizure and destruction of tactically important positions and objectives (road junctions, bridges, river crossings, hydro-electrical facilities, mountain passes, passages, defiles, etc.). Tactical air assaults are tasked with "cooperation with attacking forces in rapidly overcoming natural obstacles, interdicting the maneuver of enemy forces, and insuring high offensive tempos; and destroying rear bases, warehouses, and demolishing pipelines, etc."²³ Air assaults are conducted by helicopter or fixed wing aircraft at tactical depths such that attacking ground forces can link up with air assault forces within several hours.

The third functional tactical maneuver force, the mobile obstacle detachment (POZ), provides specialized engineer support to attacking or defending forces. This "temporary military formation [is] created in ground forces from subunits (units) of engineer forces for construction of mine-explosive obstacles and execution of demolitions."²⁴ Cooperating with combined arms forces (battalions and regiments) and antitank reserves, or sometimes operating independently, the POZ sows antitank and antipersonnel mines on likely enemy avenues of approach into the formation of attacking or defending forces. It also places obstacles in the gaps, on the flanks, and across the front of units as

required by the tactical situation. All of these battalion or smaller size tactical maneuver forces employ specially trained subunits to conduct reconnaissance. These reconnaissance units come either from organic assets or are provided by higher headquarters (divisions and regiments).

The Soviets possess forces at the divisional level specifically configured to conduct troop ground razvedka. These include the divisional reconnaissance battalion and the regimental reconnaissance company, each of which form the reconnaissance detachments, groups, and patrols at the tactical level to screen the advance of their parent forces. The divisional reconnaissance battalion, consisting of a headquarters and service company, two BMP reconnaissance companies, one scout car company, and a radio/radar reconnaissance company is equipped with six medium tanks and thirty armored combat or scout vehicles (BRDM/BRDM-2, BMP/BMP-1, and BTR-60 PA).²⁵

The battalion, less its radio/radar reconnaissance company, which remains in the rear area, forms a reconnaissance screen up to 50 kilometers (1 to 2 hours) ahead of the division main body. The long-range reconnaissance (scout car) company may operate as far as 100 kilometers ahead of the division. As contact develops, the distance between the screen and the division's main force shrinks to 10-15 kilometers. Battalion subunits advance in six to eight groups along three or four axes of advance, with squad-size elements operating across frontages of up to three kilometers.

Divisional reconnaissance detachments, groups, and patrols have the mission of reconnoitering divisional march routes, locating enemy forces in the vicinity of those routes, and locating targets for engagement by divisional nuclear or conventional firing means. These forces conduct area (general) reconnaissance along march routes and, whenever possible, they bypass enemy forces after pinpointing their location. The presence of armor in the reconnaissance forces provides it the capability of dealing with opposition when necessary and feasible.

To the rear of divisional reconnaissance forces, operating at shallower depths, are reconnaissance groups and patrols from regimental reconnaissance companies. The reconnaissance company of motorized rifle or tank regiments consists of a headquarters company, a BMP scout platoon, a scout car platoon, and a motorcycle section equipped with eight armored combat or reconnaissance vehicles and three motorcycles.²⁶ These forces, arrayed in groups or patrols, normally numbering three squad-size groups per regiment, follow divisional reconnaissance elements and perform missions in support of the regiment analogous to the missions of divisional reconnaissance forces. Regimental reconnaissance normally extends to a depth of 25 kilometers ahead of the main force.

Recently, Soviet theorists have stressed the utility of forming a combined arms mix of forces at the battalion level, capable of conducting more flexible operations in warfare increasingly dominated by new high-technology, high-precision weaponry. The new battalion groups which emerge in response to this concern will likely possess, in

addition to an improved weapons mix, a distinct reconnaissance capability in their own right, perhaps consisting of a battalion reconnaissance platoon, which will supplement reconnaissance forces at regiment and division level.

One of the most important types of troop razvedka is the reconnaissance in force [razvedka boem], a technique the Soviets extensively employed and refined during the Second World War. The Soviets conduct reconnaissance in force to obtain "reconnaissance information about the enemy by means of combat actions (offensives) of specially designated subunits," in particular, when intelligence collection by normal means has not provided necessary information about enemy dispositions and intentions.²⁷

The Soviets routinely employed reconnaissance in force beginning in late 1942, when reinforced companies or battalions attacked days before a planned offensive to determine precise enemy dispositions. Since, at first, this razvedka occurred several days before the planned operation, and in the main offensive sectors, the technique became a prime attack indicator. To solve this problem, the Soviets then conducted reconnaissance in force across a broad front within twenty-four hours of the planned attack. Often, late in the war, the Soviets would deliberately employ reconnaissance in force as a diversionary measure, as an integral part of their deception planning. During latter stages of the war, divisional reconnaissance battalions, often advance battalions from first echelon regiments, conducted reconnaissance in force in multiple sectors.

Today, the Soviets consider reconnaissance in force to be an important razvedka tool, especially in conventional operations. Normally they conduct reconnaissance in force by employing a reinforced motorized rifle or tank battalion or company, depending on the terrain and enemy strength. These battalions or companies contain reconnaissance patrols and groups which are assigned the specific mission of seizing prisoners, documents, and enemy equipment. Attached artillerymen and sappers are tasked with conducting artillery and engineer razvedka. Reconnaissance in force subunits are supported by artillery fire and, on occasion, air strikes by fixed-wing aircraft or helicopters. Commanders of divisions and regiments control reconnaissance in force in their specific sectors, but such action is often planned by higher headquarters as an integral portion of its razvedka plan.

Thus on the march and during combat itself, the Soviets field an array of forces organized to perform specific functions which, if properly executed, contribute to overall combat success. While the combat function remains most critical, those of reconnaissance and protection are essential ingredients for successful operations.

To deny the Soviets tactical and operational success, prospective opponents must be able to distinguish between the wide array of specialized Soviet units, operating separated from Soviet main forces. The identification and destruction of Soviet ground reconnaissance forces promises to blind the parent Soviet force. The identification and destruction of Soviet forward detachments may cripple a Soviet main

effort by stripping the initiative from Soviet hands. Finally, the penetration of Soviet protective systems and forces may permit disabling of the Soviet main force.

Since reconnaissance units operate farthest forward and tend to be the most fragile of these specialized forces, their identification, engagement, and destruction must be a high priority aim.

Artillery Razvedka

Closely associated with ground troop razvedka are artillery and engineer razvedka, which the Soviets conduct to determine the precise configuration of enemy dispositions, particularly regarding firing systems and engineer features such as defensive positions and obstacles. Both artillery and engineer razvedka have the principal goal of target determination, and both rely on a combination of direct observation, ground and air reconnaissance, and a variety of more technical collection means. The range of artillery and engineer razvedka extends up to 20 kilometers in the enemy rear.

The main mission of artillery razvedka is "the acquisition and processing of data, necessary for the preparation of effective artillery fires and tactical rocket strikes."²⁸ It operates in close cooperation with other razvedka means. In order of priority, acquisition means concentrate on detecting enemy nuclear weapons systems, artillery positions, combat reserves, assembly areas, headquarters, logistical installations, and lines of communications.

The commanders and staffs of rocket and artillery forces are responsible for organizing artillery razvedka. To accomplish this task, they employ specially equipped reconnaissance artillery subunits and optical, electro-optical, sound, radio-location means as well as radio-technical stations and helicopters for aerial target acquisition (in Russian, reconnaissance-corrective helicopters). Ground artillery razvedka exploits captured documents, interrogation of POWs and civilians, and seized enemy equipment.

Fronts, armies, and divisions conduct artillery instrumental razvedka using a dense network of command-observation and observation points (KNPs and NPs), mobile reconnaissance points (PRPs), sound and radio-technical reconnaissance posts, radio-location stations, and ground artillery reconnaissance groups. The Soviets further subdivide artillery instrumental razvedka into optical, sound, radio-location, radio-technical, and photographic reconnaissance, each of which is conducted by specialized artillery reconnaissance units and subunits. Optical reconnaissance relies on the variety of fixed and mobile observation points, often operating in combination (two or three in a common network). Sound razvedka subunits employ sound detection devices from a variety of specialized ground artillery razvedka stations to pinpoint enemy firing location. A similar network of ground reconnaissance stations (PRS) determines target locations by analysis of enemy radio traffic. Finally, helicopters and ground observation points engage in systematic photography, which, with other aerial photography, creates a mosaic of enemy positions for use in target identification. Intelligence subunits at each level provide photo interpretation support.²⁰

Artillery razvedka units and subunits are deployed through every level of the artillery force structure. Within the artillery regiment of Soviet divisions, the target acquisition battery provides artillery razvedka capability. This battery consists of a headquarters, communications, sound ranging, reconnaissance, and topographic survey platoons, and radio and surveillance radar sections. Depending on their

function, these subunits are equipped with mobile radars and sound, range, and radar-direction finders. The BMP-mounted "Small Fred" radar operates with forward regiments while the MT-LB-mounted "Big Fred" radar, with a range of up to 15 kilometers, functions at division level. Within artillery and motorized rifle regiments, artillery battalions also field the "Small Fred" battlefield surveillance radar which forms the nucleus of an artillery mobile reconnaissance point, and a basic range-finding capability as well.³⁰ At army level, artillery units have a similar artillery razvedka capability supplemented by other intelligence collection means organic to the army. Similar assets also exist within the target acquisition battalion subordinate to front artillery divisions. Historically, this has been the case, and it still is (figure 4).

Given the increased tempo of operations on the modern tactical battlefield, the Soviets are directing even greater attention to the necessity for rapid target identification. To solve this problem, they have devised a system for closer cooperation of reconnaissance means and artillery units through employment of an reconnaissance-fire artillery group [razvedyvatel'naya-ognevaia gruppa--ROG]. The reconnaissance-fire group is created within a larger artillery group, and it contains, under a single command, several artillery battalions, an artillery reconnaissance subunit, and sometimes a helicopter for use in correcting fire. The ROG engages and suppresses "particularly important enemy targets," which threaten a friendly force, either on the offense or the defense.³¹

<u>ARMY</u>	<u>RECONNAISSANCE ARTILLERY</u> <u>BATTALIONS</u>	<u>CORRECTIVE</u> <u>AIRCRAFT</u>	<u>AEROSTATIC</u> <u>OBSERVATION</u>
61st	45th ORAD	4 aircraft 98th OKAP	3d Detachment, 6th VDAN
5th Shock	725th, 821st ORAD, Recon aviation battalion, 44th Guards Army Gun Artillery Brigade	6 aircraft 98th OKAP, 3d Night OKAP	1st, 2d Detachments 4th VDAN
8th Guards	OKAP, 6th Artillery Penetration Corps	6 aircraft, 98th OKAP	3d Detachment, 4th VDAN
69th	810th ORAD, Recon aviation battalion, 62d Army Gun Artillery Brigade	8 aircraft, 93d OKAP, 3d Night OKAP	2d Detachment, 6th VDAN

Figure 4. Soviet artillery
razvedka assets: Vistula-
Oder Operation, January 1945

Each reconnaissance-fire group operates in a specific assigned sector of fire, in which it engages targets. Target engagement priorities are determined either by the group commander or the senior artillery commander. The artillery reconnaissance subunit reconnoiters targets, determines their coordinates, and reports the targets to the reconnaissance-fire group commander and battalion fire control which then fires on the target. The artillery reconnaissance subunit controls the fire throughout its duration.

Soviet writings on this subject highlight the importance of the concept (as well as the difficulties), especially regarding communications. Creation of the reconnaissance artillery fire groups is analogous to similar Soviet efforts to tailor and task-organize forces to fight more effectively at the lowest level of command.

The Soviets expect this elaborate system of artillery razvedka to be able to identify the majority of targets in enemy tactical depths. The current and future challenge will be to extend this detection capability into the shallow operational depths in order to counter enemy high-precision weaponry.

Engineer Razvedka

The Soviets define engineer razvedka as "part of tactical razvedka intended for the acquisition of information about the terrain and its engineer preparation, and about the condition and capabilities of enemy engineer forces."³²

Specifically, engineer razvedka determines:

- the nature and degree of engineer preparations of enemy positions,
- enemy obstacle systems, especially those containing atomic demolitions,
- the trafficability of terrain for military forces and transport means,
- road and bridge conditions,
- the location and nature of obstacles (destroyed areas, obstructions, fires, flooded areas, etc.) created by nuclear fires...,
- the nature of water obstacles and crossing capabilities,
- the location and condition of sources of water and local materials of use for engineer construction,
- cover and concealment and defensive characteristics of the terrain.

The chiefs of engineer forces, along with engineer commanders and staffs at all levels, are responsible for organizing engineer razvedka in accordance with the force commander's razvedka plan. All planned measures are implemented by engineer units and subunits, operating independently or as part of a larger reconnaissance force. The Soviets create engineer observations posts (INP), engineer photographic posts (IPF), engineer reconnaissance patrols (IRD), and engineer reconnaissance groups (IRG) to fulfill their assigned missions. These elements employ basic observation techniques, ground sweeps,

photography, ambushes, map study, and interrogation of POWs and civilians to acquire necessary data. They are equipped with a variety of mine-detection, optical observation, photographic, and deciphering charts.

Engineer personnel routinely participate in ground reconnaissance as a part of reconnaissance detachments, groups, and patrols and provide personnel and equipment to man movement support detachments (OOD) which conduct engineer reconnaissance for moving forces. The OOD is a task-organized engineer unit in platoon to company strength which deploys forward, often accompanied by a combat reconnaissance patrol (BRD). Although it is not an engineer reconnaissance unit per se, the mobile obstacle detachment (POZ) incorporates reconnaissance in its mission of providing mobile engineer support on the battlefield. A distinct element in the force's combat formation, the POZ is made up of engineer obstacle-laying or obstacle-clearing subunits in about company strength, reinforced by antitank weapons and infantry and equipped with a variety of mines and mineclearing equipment. Mobile obstacle detachments are formed by both armies and divisions.

Engineer forces within a motorized rifle and tank division are the regimental engineer company and the divisional battalion. The former consists of a headquarters and mine warfare, bridge and technical (construction) platoons. The latter includes combat engineers, assault-river crossing, technical, road/bridge construction and pontoon bridge companies, and engineer reconnaissance, communications, maintenance, and service platoons.³³ Although some of the manpower of the regimental

company can be used for engineer razvedka (normally in conjunction with other forces), the engineer reconnaissance platoon of the divisional engineer battalion provides basic razvedka capability. This specially trained reconnaissance force is often augmented by sappers and minelayers from the combat engineer company and equipment from other battalion elements. Engineer units at army and front level possess specialized engineer forces for deeper operational razvedka.

Engineer reconnaissance is performed in specialized and functional subunits as well. For example, the most likely candidate to serve as forward detachment in motorized rifle divisions, the separate tank battalion, has an engineer section which assists that force in accomplishing the unique combat mission, which requires a considerable degree of initiative. The engineer section tailored with other battalion combat forces performs engineer razvedka.

Radiological, Chemical, and Biological Razvedka

Related to ground razvedka in the sense that they are essentially tactical, are radiological, chemical, and biological razvedka, all of which perform similar functions. Biological and chemical razvedka are conducted "to reveal the scale and degree of radioactive contamination of a locality, air space, water regions, and military objectives."³⁴ Reconnaissance, chemical reconnaissance, helicopter, and all types of conventional forces conduct it, employing specialized equipment or simple dosimeters. Specialized chemical forces perform more complicated missions along specifically designated routes or in specific combat

sectors. Biological razvedka to detect potential or actual enemy use of toxic agents is conducted by the same range of forces.

To conduct this specialized razvedka, the Soviets use a system of coordinated chemical observation posts (KhNP) and chemical reconnaissance patrols (KhRD). Observation posts have the task of identifying the presence of radiological, chemical, or bacteriological contamination and issuing appropriate warnings to forces either while on the march or in combat. The observation posts operate from specialized chemical reconnaissance vehicles (BRDM-2), from trenches, or other positions near the force command post. It consists of two or three observers equipped with optical devices, maps, or graphics of the region, compasses, watches, chemical and radiological detecting equipment, and communications and warning apparatus. The observation post at all times maintains an observation journal.

Chemical reconnaissance patrols mounted on BRDM-2 vehicles operate independently or as part of reconnaissance and security forces, forward detachments, and movement support detachments. As such they are an extension of the more elaborate observation post system, but they perform the same basic missions. They are also formed in special subunits dispatched to secure or destroy enemy nuclear or chemical delivery systems or storage sites.

Medical service units provide personnel for reconnaissance whenever there is a likelihood of biological weapons use. In that case, they function in similar fashion to radiological and chemical reconnaissance forces.

Specialized radiological and chemical defense forces are found within regiments and higher command levels. The two BMP reconnaissance companies of the divisional reconnaissance battalion each possess two BRDM-2 (rkh chemical) with which to establish chemical reconnaissance patrols. The division's regiments each field a chemical defense company with a reconnaissance platoon and decontamination platoon. Each reconnaissance platoon also has two BRDM-2rkh. The division's chemical defense battalion consists of two decontamination companies, a chemical reconnaissance platoon, and supporting subunits. The reconnaissance platoon possesses nine radio-equipped BRDM-2rkh. At higher levels, Soviet tank and combined arms armies contain chemical defense battalions, each with three chemical companies and a chemical reconnaissance company.³⁵ This broad array of specialized chemical forces possesses the capability of employing a significant network of chemical observation posts, and chemical reconnaissance patrols to provide warning of nuclear or chemical contamination.

Supplementing this ground-oriented network are Soviet helicopter-equipped units which have either the primary or secondary mission of detecting the presence of radiological and chemical contamination. The Soviets place helicopters at the disposal of chemical reconnaissance forces to extend the range of their detection capabilities.

Air Razvedka

Traditionally, air razvedka has been one of the most important sources of Soviet intelligence information. It has played a significant

role in Soviet razvedka theory since the 1920s, and since late 1942 it has been one of the most productive means of intelligence collection. By definition air razvedka "is conducted by units [regiments] of reconnaissance aviation, by reconnaissance subunits [squadrons] of aviation formations [divisions], by all air crews fulfilling combat missions, as well as by pilotless flying apparatus (aircraft, automatic aerostatic equipment, etc.) with the aim of obtaining information concerning the enemy (objectives, forces and means, terrain, etc.) necessary for all elements and types of armed forces to conduct military operations successfully."³⁶ This definition includes as well modern satellite collection platforms.

Air razvedka by satellite, piloted, and unpiloted aircraft encompasses the tactical, operational, and strategic depths in the enemy rear. Using radio, and sometimes computer link, intelligence information can be provided in timely manner, thus solving one of the most vexing problems of air razvedka in the past. Air razvedka at all depths coordinates closely with all other collection means.

The principal missions of air razvedka are:

- detection and determination of the coordinates of enemy nuclear delivery means,
- establishment of the location and grouping of enemy forces, aircraft, ships, air defense forces and means, and their maneuver,
- revealing enemy command and control systems and means,
- reconnaissance of enemy communications lines,

- determining enemy air base networks, ship basing, naval bases, and rear service organizations,
- obtaining information about radiation and weather conditions.³⁷

Strategic air razvedka has taken on preeminent importance in the nuclear age. It provides high-level commanders with necessary data concerning enemy strategic objectives located far to the rear. Most important, satellite and long-range reconnaissance aircraft are the principal means for locating enemy strategic nuclear weapons systems. Operational air razvedka serves front and army commanders by providing information required to plan and conduct front and army operations as well as operations conducted by fleets and air forces. In addition to detecting mid-range and long-range tactical nuclear weapons, operational air razvedka has the important new task of locating enemy long-range precision weapons systems. Tactical air razvedka, in support of division and regimental commanders, gathers information necessary to plan and fight the tactical battle.

Each level of air razvedka has its own parameters regarding range. These parameters change in accordance with prevailing conditions, but, in general, tactical razvedka extends to 50 kilometers, operational up to 600 kilometers, and strategic extends beyond. The front commander prepares the overall razvedka plan, which establishes detailed tasks for tactical aviation assets. These assets focus on razvedka in the tactical and operational depths.

Air razvedka relies on visual observation, aerial photography, and airborne radio-electronic collection equipment to obtain required

intelligence data. When selecting collection means, commanders consider the mission, type of aerial platform and its equipment, the time of day, and weather conditions. Visual observation is conducted by the naked eye or by using optical devices. It is useful for rapidly surveying wide regions to obtain general information about enemy dispositions and movement and about objectives, weather, and terrain. Information obtained by visual reconnaissance is passed to controlling headquarters by radio.

Photographic razvedka occurs during the day and at night using systematic, perspective, or panoramic photography. It provides "full, trustworthy and exact information about enemy forces, objectives, and terrain."³⁸ Radio-electronic air razvedka employs radio, radio-technical, radio-location, and televisual techniques to acquire information. Radio reception (interception) aircraft conduct radio razvedka "to intercept enemy radio transmissions, to determine the composition and dislocation of his forces, and to obtain information about their activities and intentions."³⁹ Radio-technical razvedka uses radio-reception and -location devices [priemo-pelengatsionnaya ustroystva] to determine the technical parameters and disposition of enemy radio-location and radio-television command and control. It can be conducted in any weather condition during the day and at night. Radio-location uses aircraft (RIS) to discover and discriminate enemy objectives, to obtain photo representations of radio-location images (portrayals) of objectives and terrain and to uncover enemy radio-location and maskirovka [deception] measures.

Televisual razvedka employs airborne-mounted televisual collection systems to transmit real-time information to ground reception stations. This permits timely observation and monitoring of both enemy and friendly forces. Supplementing these aerial collection means are more technical collection methods involving use of heat sensors, lasers, and other means.

The Soviets transmit aerial reconnaissance data to ground force headquarters directly by radio or by "automatic on-board reconnaissance apparatus." After an aircraft or satellite returns to base, air crews or technical personnel prepare documented information and reports about enemy objectives from deciphered (integrated) photographs or films and from automatically recorded aircraft collection devices (photo, film, laser, heat sensing).

The Soviets employ reconnaissance aviation units [regiments] and separate subunits [squadrons] subordinate to frontal, long-range (TVD), and naval aviation to conduct air razvedka even more extensively than they have in the past (figure 5). Front assets conduct tactical and operational missions, and theater aviation handles strategic and deep operational tasks. Both fixed-wing aircraft and helicopters participate, and the Soviets note that helicopters are especially well suited for radio-location and radiation reconnaissance as well as for visual reconnaissance. Reconnaissance helicopter subunits of squadron size provide air reconnaissance support within armies, while reconnaissance aviation regiments, with at least four squadrons each, provide the reconnaissance capability of each wartime front. In

Soviet Air Razvedka Assets (Second World War)

<u>Level</u>	<u>Razvedka Assets</u>
<u>STAVKA</u>	
Long Range Aviation Divisions	Separate long range reconnaissance squadrons (day and night)
<u>Front</u>	
Air Armies	Separate air reconnaissance regiments (four squadrons)
<u>Example:</u> Vistula-Oder Operation, January 1945	
16th Air Army	16th Reconnaissance Aviation Regiment 47th Reconnaissance Aviation Regiment 72nd Reconnaissance Aviation Regiment

Figure 5. Soviet air razvedka assets, 1945

addition, long-range reconnaissance aviation squadrons are subordinate to the Soviet High Command (probably the GRU) and theater commands. These concentrate on long-range strategic razvedka. Each reconnaissance aviation squadron numbers twenty-five to thirty aircraft configured for various types of intelligence collection, including visual, photo, infrared, and radio missions.⁴⁰ At the tactical level, divisional helicopter squadrons contain a Hoplite flight with six Hoplite helicopters, which they use for observation tasks and for radiological and chemical reconnaissance. A similar capability may be found in the army general-purpose helicopter squadron.

The important and expanding Soviet satellite reconnaissance program is understandably shrouded in secrecy. It is clear, however, that information obtained by satellites, as well as that obtained by long-range strategic reconnaissance aircraft is sent directly to the High Command. Within the General Staff of the High Command, the GRU tasks such razvedka assets and collects and analyzes obtained data.

Agent/Reconnaissance-Diversionary Razvedka

One of the most ubiquitous yet shadowy aspects of Soviet razvedka relates to the use of agents and reconnaissance-diversionary forces operating in the enemy rear. In part, the obscurity surrounding this human razvedka results from Soviet reluctance to talk openly of these efforts, at least in a contemporary sense. Soviet theoretical writings on the subject are couched in terms of enemy use of "special" razvedka and agents. It is clear from these descriptions that such techniques are useful to the Soviets as well. Documentation and Soviet writings on the Second World War, moreover, reveal the degree to which the Soviets engaged in such activities. Soviet success with agent and reconnaissance-diversionary razvedka during that period make it clear they will redouble their efforts in that regard today.

The Soviets define agent razvedka as the use of secret agents "to obtain information about the armed forces and the military-economic, and mobilization potential of governments." It is conducted in peacetime as well as wartime, and "it intensifies during periods of crisis and acquires an especially important meaning during the course of war."⁴¹ Closely related to agent razvedka is special [spetsial'nai] razvedka, which is conducted to "undermine the political, economic, military, and morale potential of the probable or actual enemy." Its principal missions are "the acquisition of intelligence information about important economic and military objectives, the destruction or neutralization of these objectives, the organization of sabotage and

diversionary-terrorist acts, ...the conduct of propaganda, the organization and training of insurgents, etc."⁴²

Special razvedka is organized "by military organs and special services and is conducted by the forces of agent razvedka and forces of special designation [voisk spetsial'nogo naznacheniiia] (often translated as 'special purpose forces.')" These forces employ special types of weapons, ammunition, and technical means including explosives and radios of various types. Forces of special designation are specialized units and subunits designated to conduct reconnaissance-diversionary activities. In wartime "subunits of these forces are thrown into the enemy rear to inflict damage on him by means of surprise strikes (raids, etc.), to seize and destroy important objectives, to destroy groups of enemy forces, to disrupt communications, to disorganize civilian life, to disrupt the work of organs of authority and control, to organize the escape of POWs, and to create underground organizations and groups." In short, these forces will replicate the activities which both reconnaissance-diversionary and partisan forces conducted during the Second World War (figure 6). The Soviets add to these definitions the statement, "forces of special designation are used also in peacetime, especially in periods of strained international conditions." Although the Soviets label these definitions "foreign," they apply equally to practices the Soviets have employed in the past.⁴³

Given the paucity of Soviet writings regarding contemporary use of agents and reconnaissance-diversionary forces, it is useful to outline

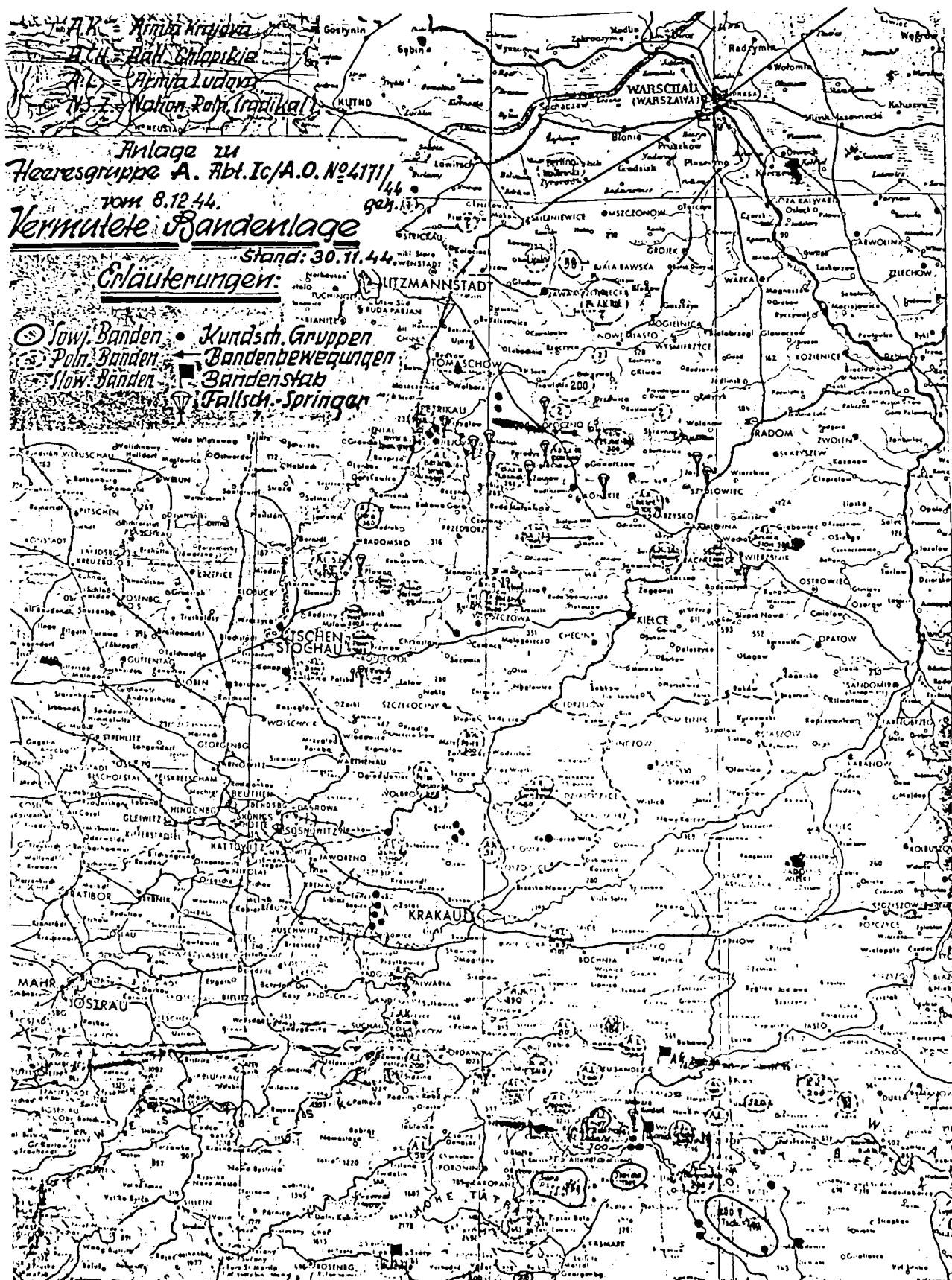


Figure 6. German Army Group
 'A' assessment of Soviet
 reconnaissance-diversionary
 activity, December 1944

the system the Soviets employed in the Second World War to understand the reconnaissance-diversionary system the Soviets would today attempt to replicate.

During the Great Patriotic War, the Soviets employed an extensive network of agents deployed around and in the enemy rear. Glimpses of this system are available in a host of often sensational works dealing with Soviet spy networks in Switzerland (the "Dora" and "Lucy" networks, etc.) and in Soviet writings describing the activities of people such as Victor Sorge. Although many of these works are not accurate, the basic image is correct. The Soviets fielded and controlled an extensive network of agents subordinate to the Peoples' Commissariat of Internal Affairs [Naradnii Komissariat Vnutrennykh Del-NKVD] and to the Main Intelligence Directorate [Glavnoe razvedyvatel'noe upravlenie-GRU] of the Soviet Army General Staff (figures 7-8). In addition, front commands controlled their own network of agents working in the German and Japanese operational rear areas.⁴⁴

Reconnaissance-diversionary forces operated at virtually every level of command from national level down through army. At the lower levels, these forces gradually merged with reconnaissance groups and detachments subordinate to lower level operational (army) and tactical headquarters (corps and divisions). The chief difference between reconnaissance-diversionary and simple reconnaissance forces rested in the mission and manner of operations of each force. The former engaged in a variety of military and non-military missions at considerable depths in the enemy rear. They were specially trained for sabotage and intelligence

STALIN
STAATSKOMITEE FÖR
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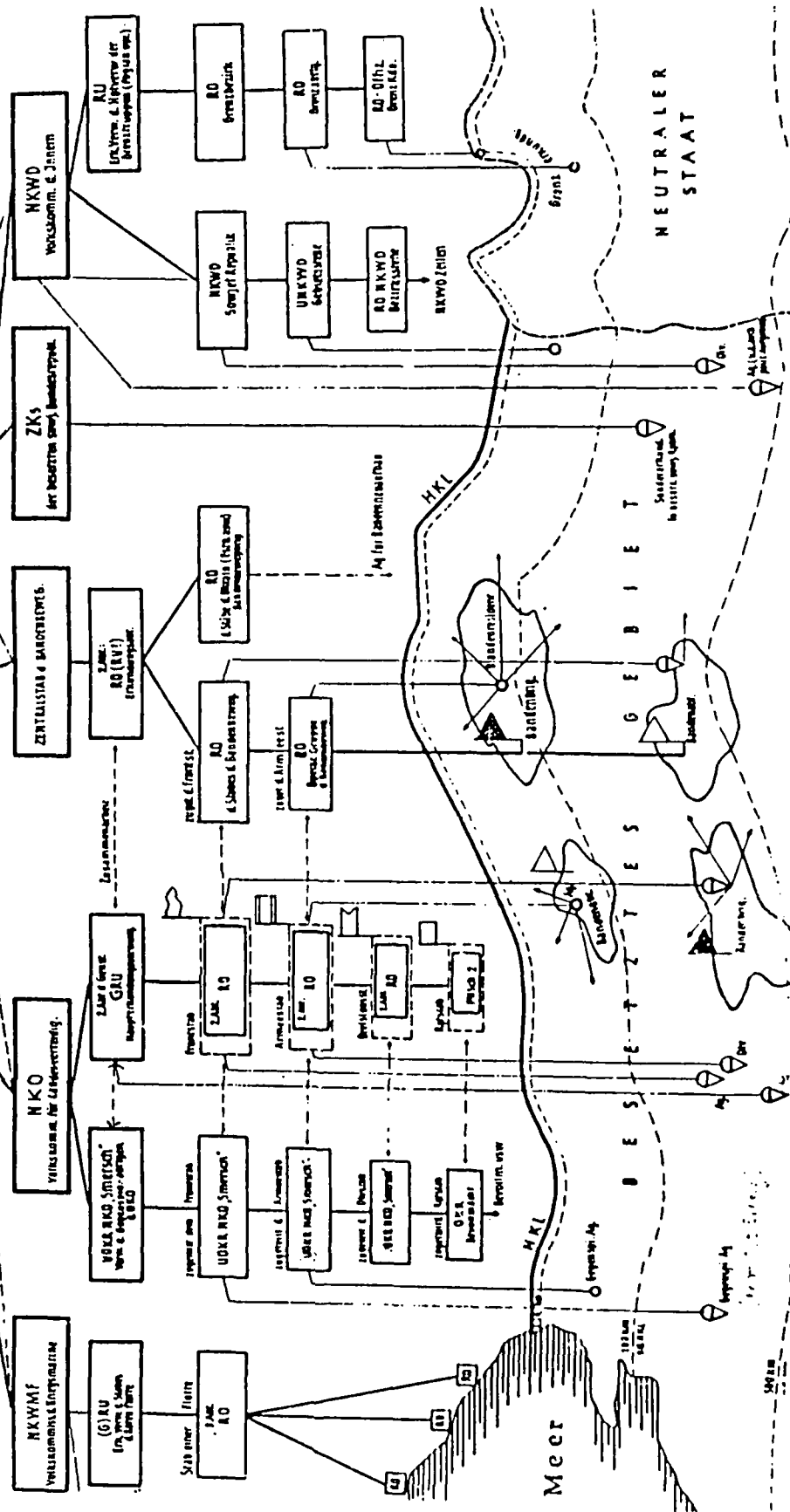
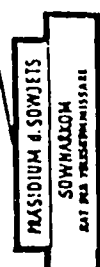


Figure 7. German assessment of Soviet intelligence structure, October 1943

STRUCTURE OF THE MAIN INTELLIGENCE DIRECTORATE OF THE RED ARMY

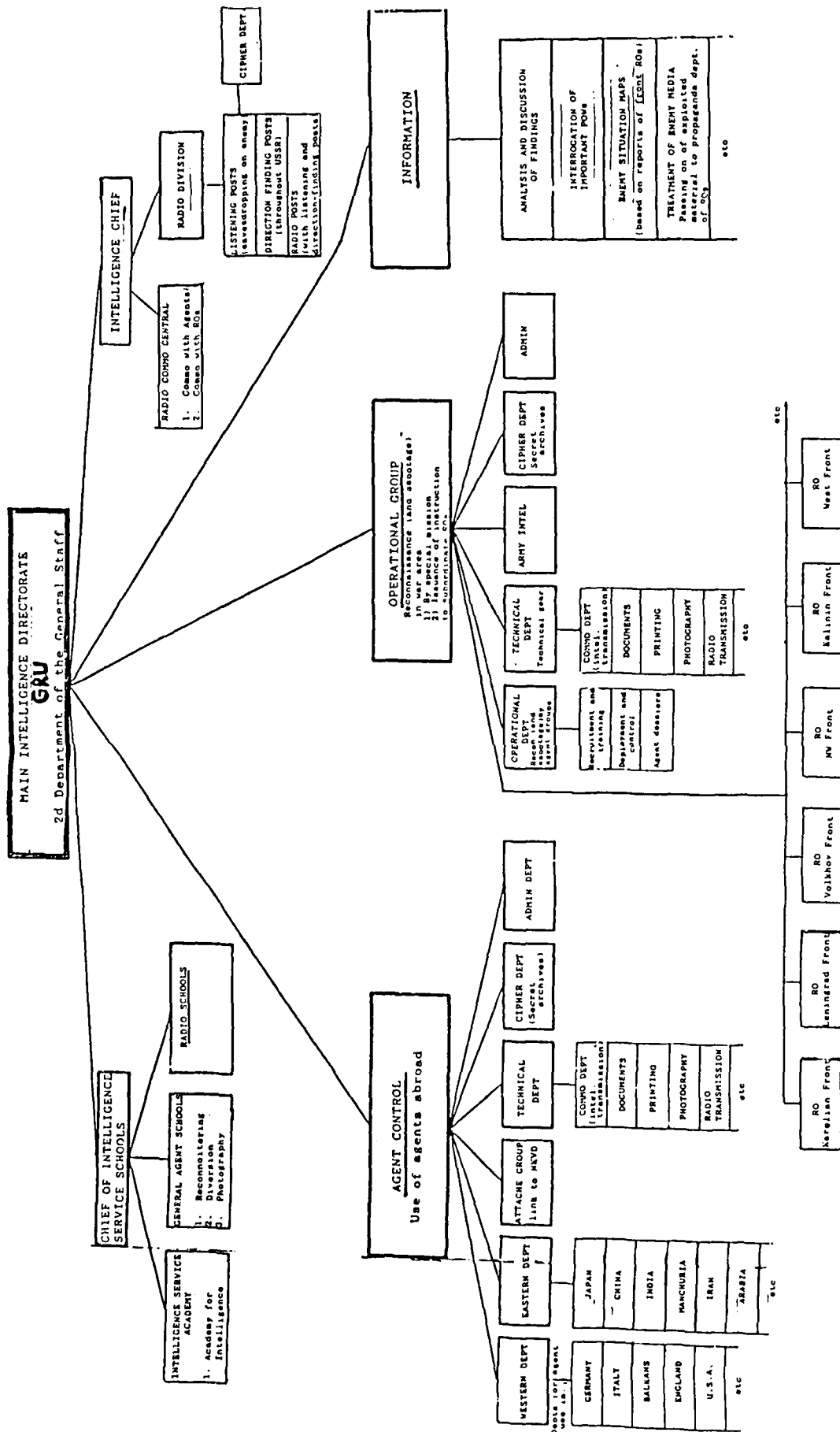


Figure 8. German assessment of Soviet Main Intelligence Directorate (GRU), October 1943

collection tasks, they usually operated dressed in civilian clothes or enemy uniforms, and they often spoke the enemy's language. The latter performed military missions of a tactical nature (intelligence collection, reconnaissance, and direct combat) dressed in Soviet military uniforms. Despite the distinction between the two, their efforts formed a continuum.

At the highest level, reconnaissance-diversionary forces were controlled by the NKVD and GRU. Created in late 1941, the Separate Motorized Rifle Brigade of Special Designation [OMSBON], subordinate to the NKVD, provided a nucleus for reconnaissance-diversionary activities controlled by national intelligence organs.⁴⁵ These specially selected and trained forces provided specialized reconnaissance-diversionary groups, detachments, and teams, which were employed under direct NKVD control or assigned to control by individual Soviet fronts. Through early 1943 these and other agent activities were controlled by the Special Department [sobyi otdel'] within each front, but under NKVD direction. The special departments also had the responsibility of conducting counter-razvedka activities (figure 9). After early 1943 the counter-razvedka function reverted to the Directorate of Counter-Razvedka of the Peoples' Commissariat of Defense, which had the nickname, "Death to Spies [Smert shpionam]" or SMERSH. Thereafter the GRU controlled reconnaissance-diversionary forces operating in support of fronts through the Intelligence Departments [Razvedyvatel'nyi otdel'-RO] of fronts and armies (figure 10). GRU may have taken responsibility for OMSBON forces at national and front level as well.

UP TO APRIL/MAY 1943:

THE DECENTRALIZATION OF THE DIRECTION OF MILITARY INTELLIGENCE SERVICE

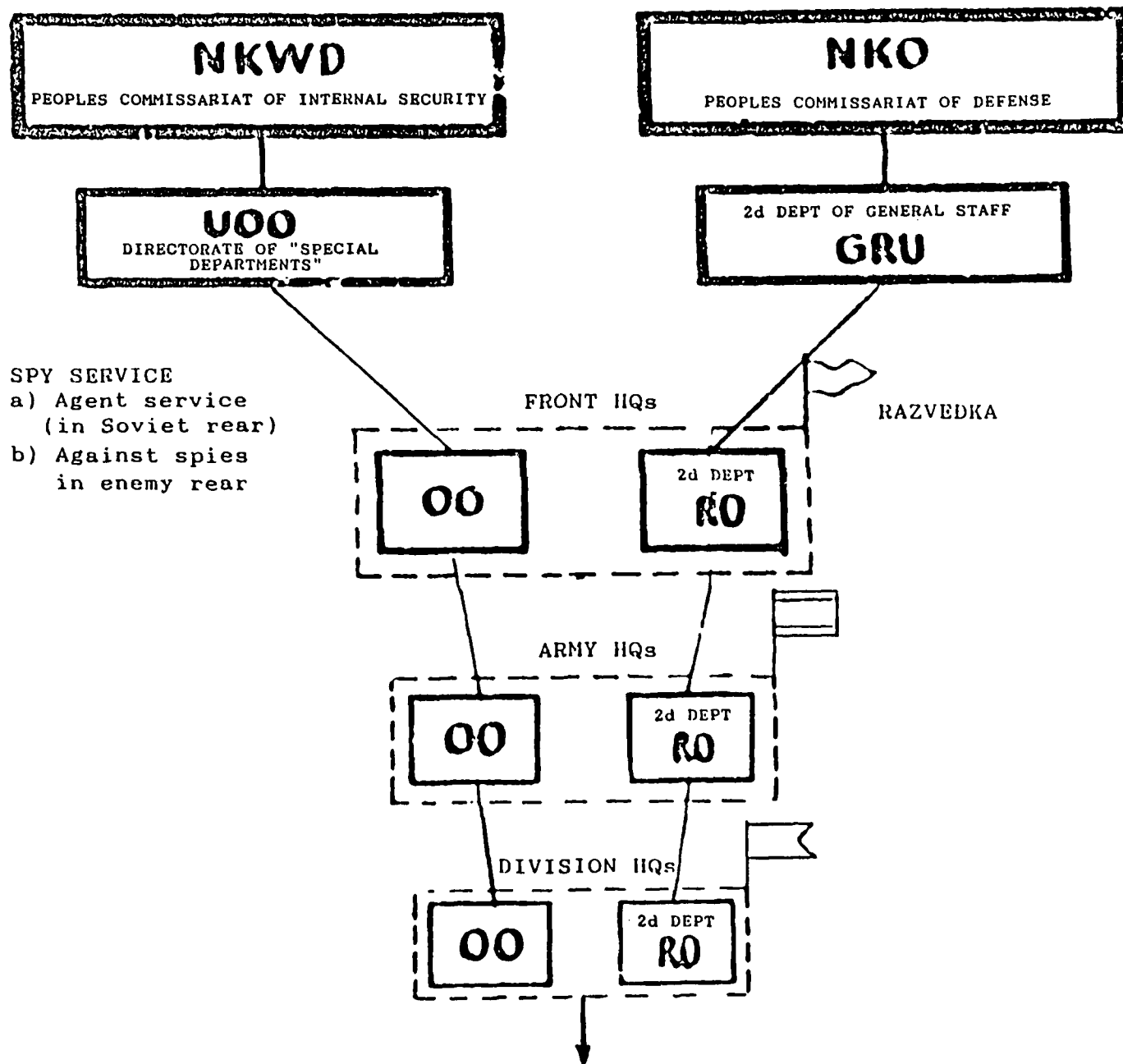


Figure 9. Soviet military intelligence service, to April-May 1943

FROM APRIL/MAY 1943

CENTRAL DIRECTION OF THE

MILITARY INTELLIGENCE SERVICE

SPY SERVICE

- a) Agent service
(in Soviet rear)
- b) Against spies
in the enemy rear

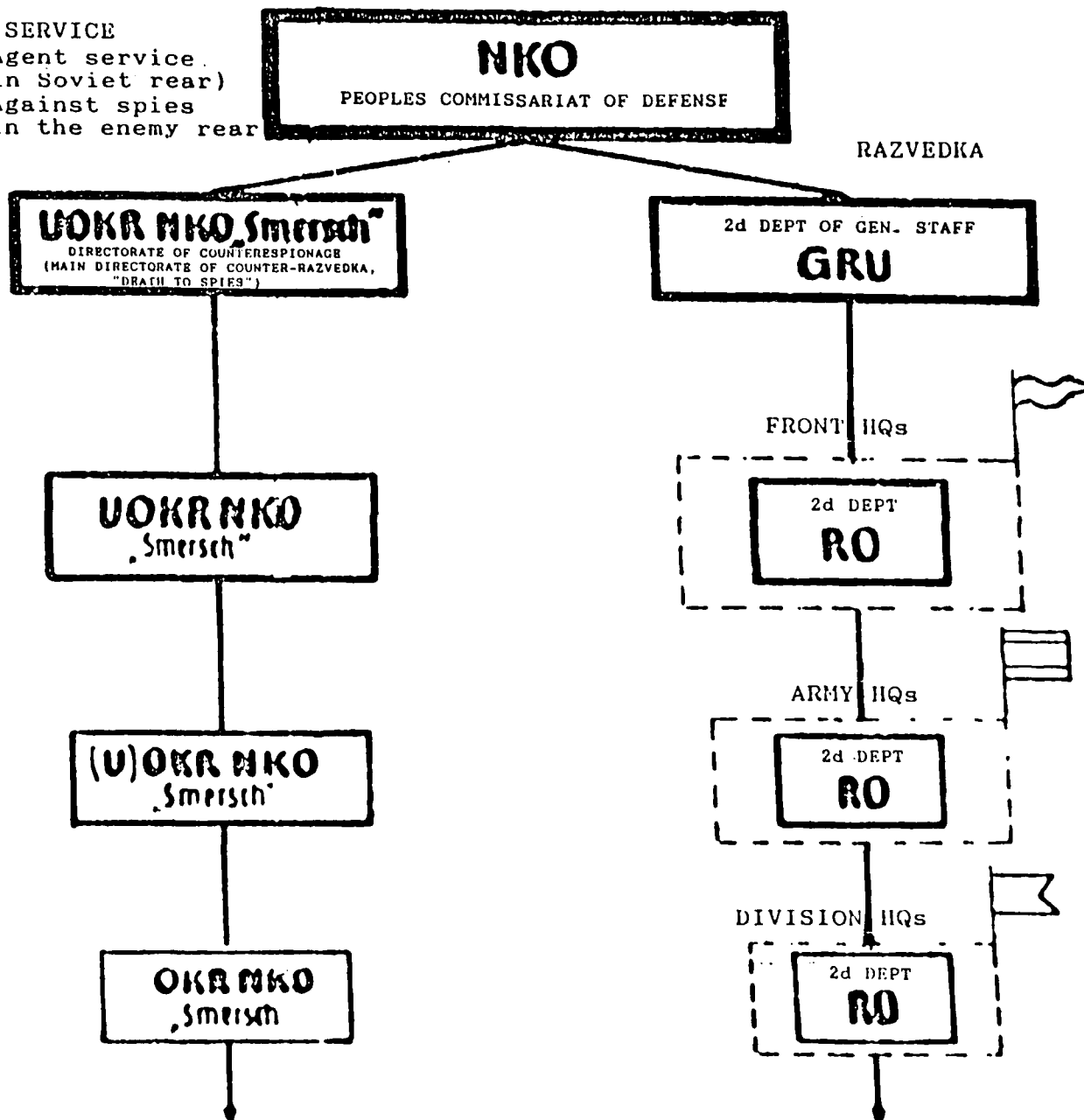


Figure 10. Soviet military intelligence service, after April-May 1943

In addition to the OMSBON, the Soviets created and employed destroyer [istrebitel'nie] battalions, and later brigades, subordinate to fronts. These subunits were initially formed, in subordination to the NKVD, from NKVD border units and other regular forces bypassed by advancing German forces early in the war. Later they formed in the Soviet rear as well, with the dual mission of providing rear area security and operating in the enemy rear to help form partisan forces or to conduct reconnaissance-diversionary missions. By late 1942, most fronts contained such battalions and brigades for operations in the enemy rear.⁴⁶ Later, smaller elements of this force operated under army control. In both cases the reconnaissance-diversionary function was controlled by the RO at front and army level. A similar structure of reconnaissance-diversionary forces operated subordinate to the Central Staff of the Partisan Movement (figure 11).

By 1944 an intricate web of agents and reconnaissance-diversionary forces had been institutionalized in support of the Soviet war effort (figures 12-14). This web became a model for contemporary and future Soviet practices. Often the Soviets employed reconnaissance-diversionary teams on secondary axes to deceive the enemy regarding the location of the main attack. This reconnaissance-diversionary activity became one more facet of deception planning.

In peacetime and in wartime, today the Committee for State Security [Komitet gosudarstvennoi bezopasnosti-KGB] and GRU control an extensive agent network. The GRU, prospective TVD commands, and fronts control reconnaissance-diversionary forces in brigade and company configuration,

INTELLIGENCE DEPARTMENT OF THE PARTISAN HQ

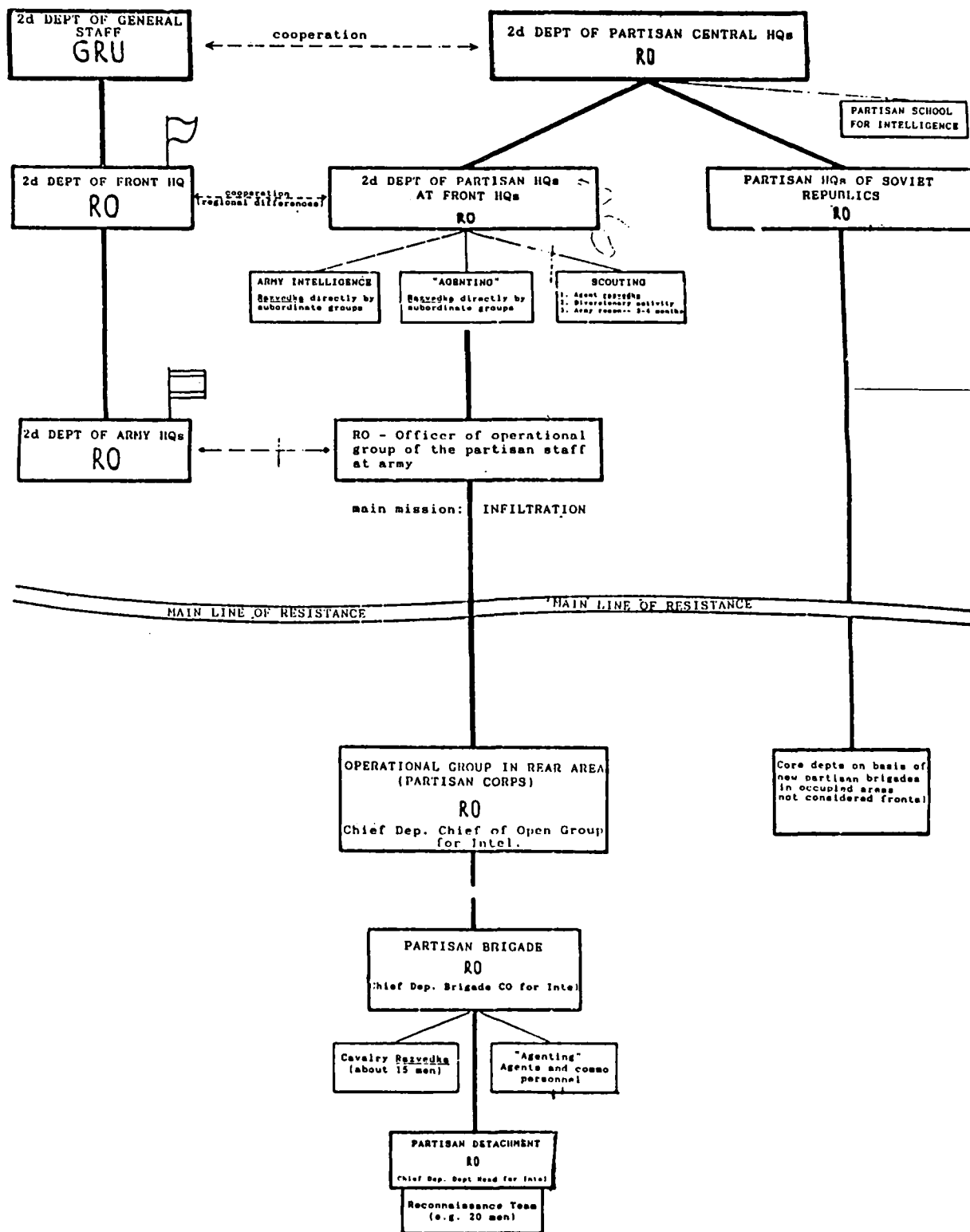


Figure 11. German assessment of partisan headquarters intelligence department, October 1943

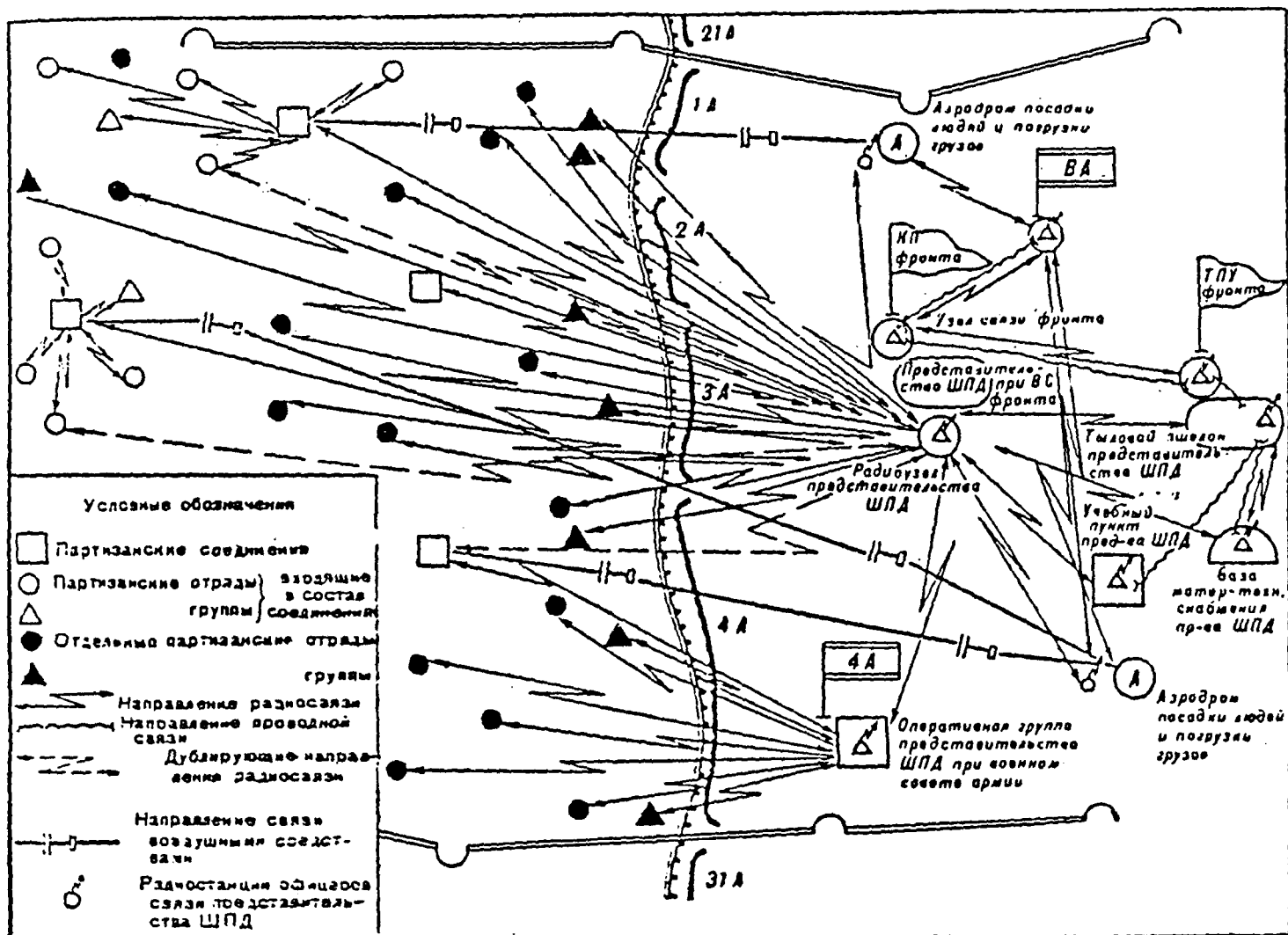


Схема 3. Принципиальная схема организации связи представительства штаба партизанского движения при Военном совете фронта

Figure 12. Soviet partisan (reconnaissance-diversionary) communications with a front staff

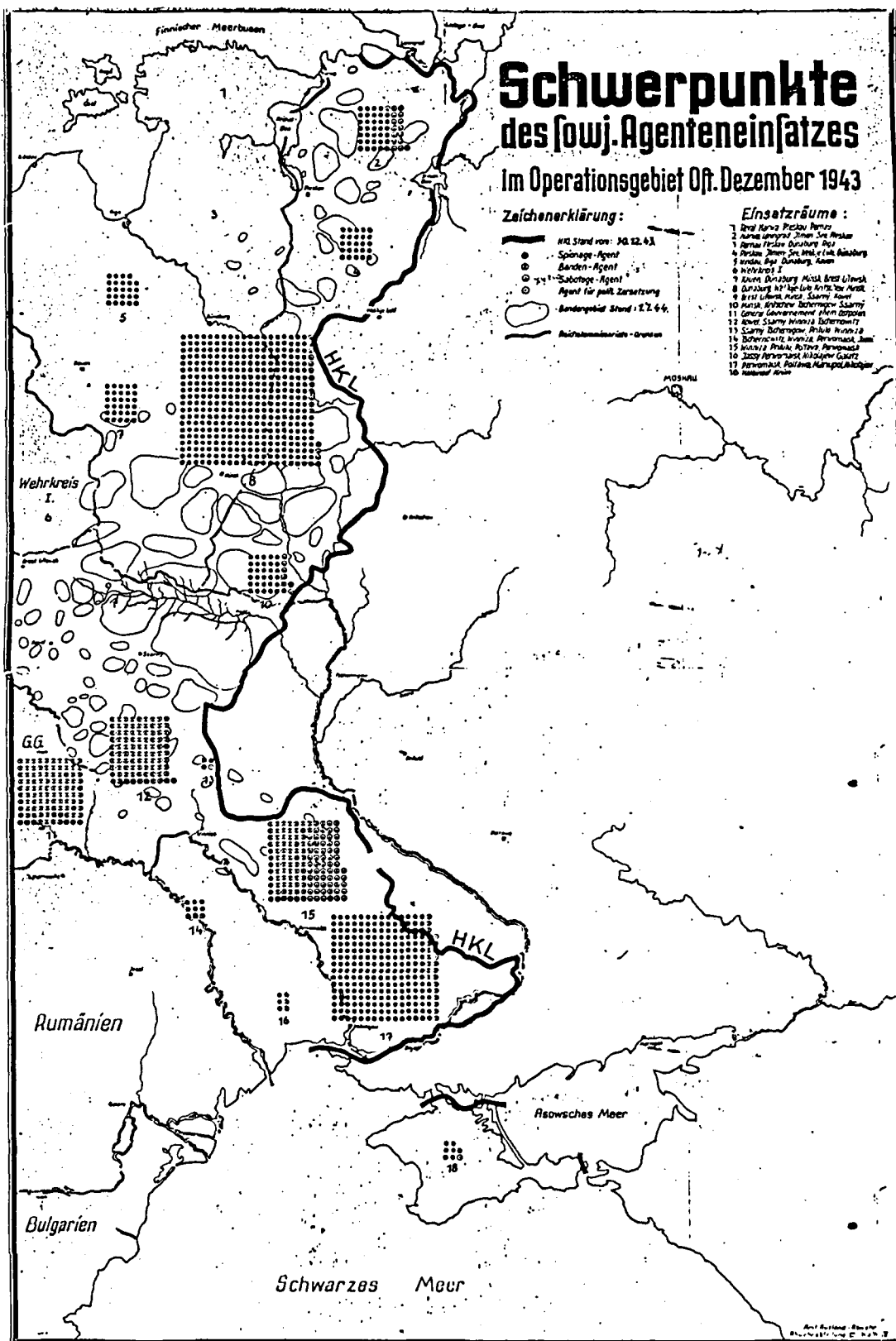


Figure 13. German assessment
of Soviet reconnaissance-
diversionary (SPETSNAZ)
activity, 31 December 1943

Ansatz sowj. Kundschaftergruppen

1.12.44-4.1.45

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Nr. 81/45 gKdos v. 5.1.45

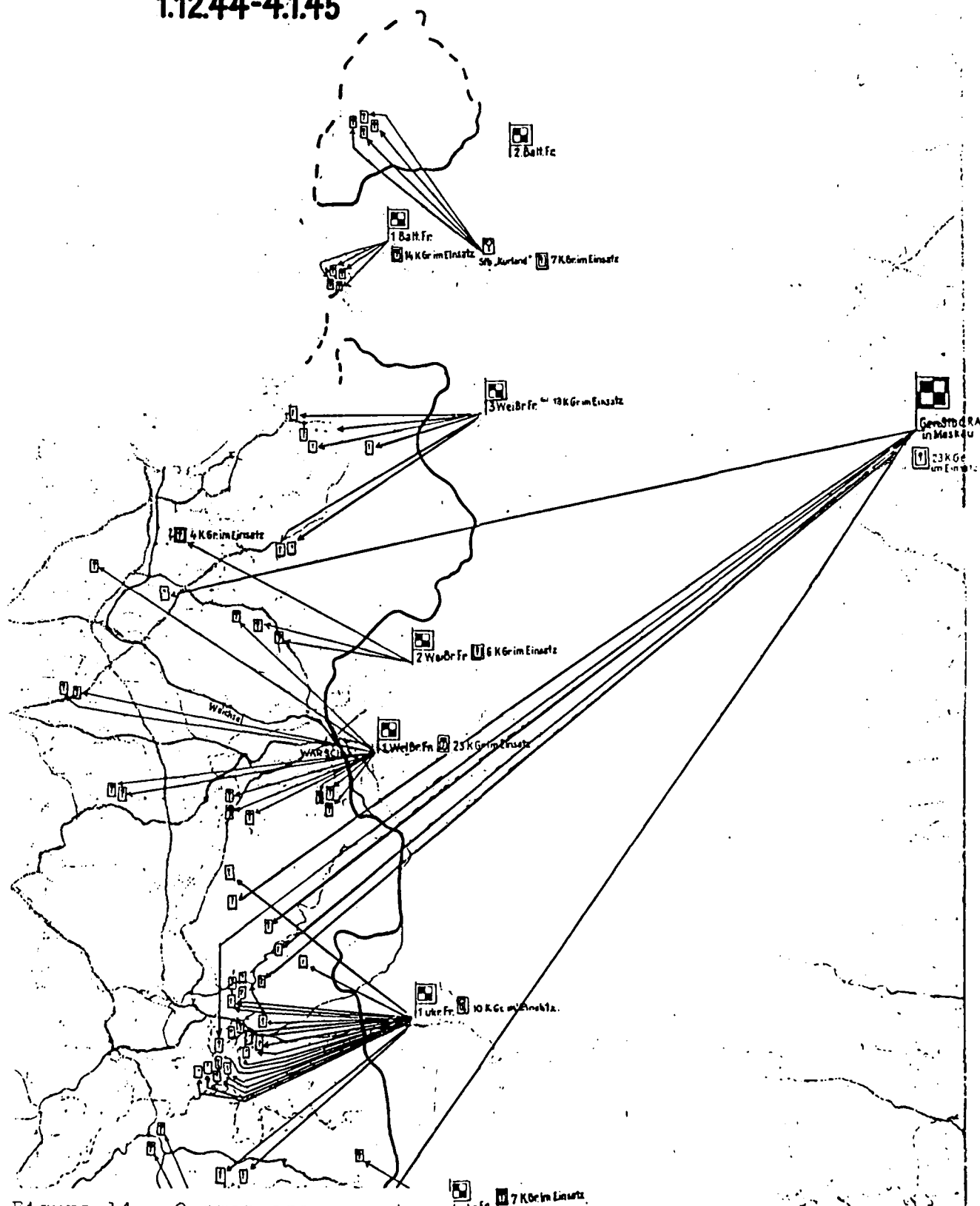


Figure 14. German assessment of Soviet reconnaissance-diversionary (SPETSNAZ) activity, 5 January 1945

which can be delivered by a variety of means (air, sea, land) into the enemy rear area. These forces can operate as detachments, groups, or parties of varying size, depending on their specific mission. Similarly trained forces of smaller size also operate either within airborne and naval infantry forces or subordinate to armies.

The reconnaissance-diversionary brigade organic to Soviet fronts and the long-range reconnaissance-diversionary company subordinate to army employ reconnaissance-diversionary forces in support of operations. Normal operations involve use of 5-8-man teams to depths of up to 1000 kilometers in the enemy rear. Each team can cover an area of roughly 25-40 square kilometers. These forces overlap in function with divisional long-range reconnaissance assets whose activities extend up to 100 kilometers. Front reconnaissance-diversionary brigades can field more than 120 teams while armies can field as many as 15 such teams. Larger detachments can be formed, if required.⁴⁷

Other specialized Soviet forces can provide reconnaissance-diversionary forces for use by front commanders. These include traditional airborne and naval infantry elements and, to an increasing extent, helicopter-delivered reconnaissance-diversionary forces from Soviet air assault brigades. It is likely Soviet use of helicopter desant forces in a reconnaissance-diversionary role will increase.

This imposing array of reconnaissance-diversionary forces represents, in its own right, an imposing intelligence collection and diversionary capability. It increases in importance when integrated into the overall Soviet razvedka effort.

Radio-Electronic Razvedka

The Soviets developed theoretical concepts for the exploitation of radio razvedka in the 1930s and practical concepts for the conduct of radio razvedka during the Second World War. By war's end, they demonstrated a considerable capability for the use of radio to collect intelligence data.⁴⁸ Those experiences underscored the importance of that technology and provided a basis for subsequent Soviet radio razvedka efforts.

The Soviets consider radio razvedka to be an integral and key element of radio-electronic struggle [radioelektronnaia bor'ba-REB] which it defines as "a complex of measures conducted for the purposes of razvedka and subsequent radio-electronic neutralization of enemy radio-electronic means and systems, as well as radio-electronic defense of one's own radio-electronic means and systems."⁴⁹ Radio-electronic struggle is thoroughly integrated with other military measures.

Radio razvedka is conducted "with the purpose of obtaining information about the enemy by means of interception and analysis of his radio transmissions and radio direction finding of [his] operating radio stations."⁵⁰ Radio razvedka incorporates the subordinate fields of radio-technical [radiotekhnicheskaja razvedka-RTR] and radio-location razvedka [radiolokatsionnaia razvedka-RLR]. Radio-technical razvedka involves the use of specialized radio-technical means to obtain data concerning "the type, designation, and location of enemy radio-electronic means."⁵¹ These means include antenna and radio-reception apparatus designed to intercept and analyze enemy radio transmissions.

Multiple reception stations use techniques like triangulation and other special analytical devices to determine type of enemy radio, the nature and location of the transmitter, and the identity of transmitting units. Radio-location razvedka seeks to "disclose objectives (targets) and determine their coordinates or movement parameters" by use of radio waves reflected from them.⁵²

Radio-location razvedka is designed to accomplish the following:

- to discover the composition, location, and nature of the actions of objectives (targets) during the day and at night in any weather condition,
- to determine the flight parameters of aircraft and helicopters and the flight trajectory of mines, shells, and rockets and to establish the locations of enemy artillery firing positions and rocket launch positions,
- to determine the type and intensity of enemy radio-location systems,
- to correct artillery fire,
- to determine by interception the epicenter of nuclear explosives.⁵³

Radio location can be conducted on the ground, from aircraft, on board ship, or from a variety of other mobile means. It is employed in close coordination with other collection assets and the Soviets feel it is particularly effective when integrated with air razvedka.

During the Second World War, the Soviets conducted radio razvedka by fielding and employing special purpose radio battalions [radiodivisiony

spetsial'nogo naznacheniia] at front level in December 1942. By war's end, such battalions existed both at GRU and front level. In 1944 the Soviets also created communications equipment close reconnaissance teams (GBRSS) at army level to monitor enemy radio and telephone communications.⁵⁴ The experience of these radio razvedka organs provided the basis for post-war and current Soviet radio razvedka organization.

Today Soviet radio razvedka forces and equipment are integrated into every level of command. They include a capability at the national level (within the GRU) and at the TVD, front, army, and divisional levels. Soviet fronts include, at a minimum, a radio and radar intercept regiment, which consists of a radio intercept battalion, a radio direction finding battalion, and a radar intercept and direction finding battalion. Additional front-level radio-electronic combat assets include a radio intercept regiment, radio and air defense jamming regiments, and an early warning regiment. These units are supported by the intelligence regiment, whose collection battalion and analysis and production company process received information.⁵⁵ The front radio intercept regiment focuses on enemy communications above corps level while the radio and radar intercept regiment targets enemy air forces as an adjunct to the work of the early warning regiments. In addition to its collection assets, fronts will field at least one radio jamming regiment to disrupt enemy communications.

Each Soviet army (tank and combined arms) contains a radio intercept battalion, targeted against enemy communications below corps, and a

radio and radar intercept battalion, which targets enemy air power. These collection means supplement the ground radar locating systems of the army artillery regiment, which conducts artillery instrumental razvedka. Within divisions, the divisional reconnaissance battalion contains a radio and radar intercept company made up of a radio intercept and direction finding platoon, a radar intercept and direction finding platoon, and an air/air ground intercept and direction finding platoon. In addition, the division fields another battlefield radar locating system within the artillery regiment. These divisional collection means focus on enemy tactical communications. Together with army intercept and direction finding posts, divisional posts are located from 3-30 kilometers from the FLOT. Posts deployed 3-6 kilometers from the FLOT intercept VHF communications, and other posts located 10-30 kilometers from the front cover HF communications. Expected ranges of Soviet tactical intercept equipment are 25 kilometers for artillery ground radars, 40 kilometers for VHF, 80 kilometers for HF ground, and unlimited for HF air waves. Higher commands' HF radio equipment can intercept from ground stations to a range of up to 80 kilometers and from air collectors to a range of over 1000 kilometers. Direction finding capabilities extend to similar ranges, with the exception of HF air direction finding, which is limited to about 200 kilometers.⁵⁰

Other Categories of Razvedka

Within the overall function of protecting the rear area of forces, the Soviets conduct rear area razvedka. It is designed to gather data

concerning "the stationing regions of rear service subunits, units, and installations and their working conditions." Data includes information regarding the location of the following:

- rear service subunits, units, and installations,
- supply and evacuation routes,
- water sources,
- the presence of local resources and possibilities for their use,
- medical conditions in the region,
- other considerations affecting the planning and conduct of rear service operations.⁵⁷

Responsibilities for performing rear area razvedka rest with rear service subunits, units, and installations. Rear service staffs organize it at the operational level, and the assistant commander for rear services arranges it at the tactical level. Medical razvedka, a separate category of rear service razvedka, is organized by the chief of the medical service and implemented through a series of medical points and participation of medical personnel in reconnaissance groups and patrols.

Closely associated with tactical troop razvedka is the ubiquitous Soviet practice of personal reconnaissance [recognostsirovka] which involves visual study of the enemy and terrain. Derived from the former Soviet concept of the "commander's reconnaissance," recognostsirovka still involves the personal presence of the commander with his subordinates. Soviet commanders conduct it when organizing combat

actions, movement and dislocation of forces, and when selecting the site of command posts and other key locations. They are usually accompanied by commanders of subordinate, attached, and supporting formations, units and subunits, chiefs of forces and special forces, and by staff officers. When time is short, recognostsirovka covers only main directions (axes), while deputies and staff officers perform the function on secondary axes. Personal razvedka can be conducted from selected fixed command points, from mobile command posts, or from helicopters. In all cases, commanders use a variety of optical and photographic equipment.

When sufficient time is available, recognostsirovka is conducted according to a plan which designates the mission, the makeup of the group, march routes, means of movement, specific observation points, and what is to be accomplished at each point and during each period of time. The results of recognostsirovka provide a basis for planning further topographical razvedka.

The Soviets note that recognostsirovka is also conducted in peacetime. Here it involves use of "specially designated recognostsirovka groups...", which have the mission of "determining march routes for the departure of forces from their points of permanent station and from their concentration (disposition) regions and for determining the plan of exercises on terrain, etc."⁵³ While recognostsirovka is routine in nature, it is also often organized to obtain additional information critical to decision making.

New Razvedka Concepts

In concert with the ongoing technological revolution in weaponry, the Soviets are studying and testing concepts for employing new weaponry or for responding to newly developed enemy weaponry. The reconnaissance-fire artillery group is but one of those new concepts. Even more complex in its design and farther reaching in its implications is the concept of the reconnaissance-strike complex (razvedyvatel'no-udarnyi kompleks-RUK). Although this concept is inherently Western (U.S.), and the Soviets refer to it as "foreign;" it is likely they have begun development of an analogous system. In fact, the Soviets first referred to the concept by its proper name in their 1986 Military Encyclopedic Dictionary, where they described it as:

long-range, high-precision weapons unified in a single automated system and [other] means for facilitating their combat use (intelligence [razvedka], target designation, guidance, navigation, process and representation of information and the working out of command communications).⁵³

The Soviets describe two such systems, one operational in its scope and one operational-tactical. The former, typified by the U.S. PLSS (Precision Location Strike System), is tasked first with detecting and destroying enemy air defense and air reconnaissance means in a sector of 500 to 600 kilometers wide and deep, and, second, with combating enemy radio-electronic means and other non-radiating targets. This operational system employs aircraft, air platforms, and multiple ground stations unified by a sophisticated real-time communications and information processing system to detect and engage targets. Target

engagement is by aircraft, ground-to-ground, and air-to-ground missiles, and by aerial bombs.

The operational-tactical reconnaissance-strike complex is typified by the U.S. "assault breaker" system, which the Soviets state, "is designated basically for combat with enemy second echelon tank groups at a distance of up to 200 kilometers from the line of contact of forces and provides guidance against moving or stationary groups of targets."⁶⁰ Strikes against targets at operational-tactical depths are made by aircraft and operational-tactical missiles.

The Soviets identify the following key elements of the reconnaissance-strike complex:

- aircraft for radio-location razvedka and guidance means for strikes, equipped with means for processing information and for command and control, and with communications apparatus,
- mobile ground transmission points for radio-location information and for selection of targets,
- guided air-to-ground and air-to-air rockets equipped with multiple warheads with homing ammunition.⁶¹

The key to success of the reconnaissance-strike system is effective automation and integration of acquisition and fire means. Soviet systems developed to match Western systems will be modified to reflect Soviet norms and capabilities. Operational complexes will extend to depths of up to 500 kilometers in the service of front commanders, while the operational-tactical systems will range to from 100-300 kilometers deep.

Reconnaissance-fire concepts employing high-precision weapons or defending against those weapons have the potential of revolutionizing battle by drastically increasing force engagement ranges and the lethality of long-range engagement. Already the prospects for U.S. deployment of reconnaissance-strike complexes has affected Soviet offensive techniques by compelling them to reemphasize tactical maneuver to avoid linear combat at the tactical level and by necessitating greater tailoring of battalion-level forces for independent operations. The concept has also rendered second echelons more vulnerable and hence less important to the outcome of battle than had been the case in the past (just as tactical nuclear weapons increased the vulnerability and lessened the importance of operational second echelons). In the future, when increased numbers of reconnaissance-strike systems are fielded, the concept of reconnaissance-strike may alter the traditional distinction between offense and defense by according to defenders a distinct initial advantage. This, in part, may be one of the motives for the recent Soviet proclamation of a defensive doctrine.

The Soviets will develop their own concepts for reconnaissance-fire and reconnaissance-strike. They will do so by building upon the already well-articulated razvedka systems they employ. While recognizing the importance of these new systems, they will remain convinced that efficient lower-level and human razvedka remains the key ingredient of achieving success in battle.

Conclusion

The comprehensive Soviet approach to razvedka responds to the Soviet belief that intelligence provides the essential basis upon which to conduct deception and, hence, achieve surprise. The increased importance of surprise in contemporary combat further accentuates the importance of razvedka. Although razvedka does not guarantee success in battle, its absence can contribute to failure.

The Soviets are convinced that the complexity and lethality of future combat requires increased importance and attention be accorded to intelligence collection and processing. As in the past, they continue to place critical emphasis on the latter function. In future warfare, given the proliferation of technologically sophisticated collection means, the problem will not involve gathering data. Rather it will be a problem of sorting and assessing data--of filtering through the noise of battle and the torrent of intelligence flowing from a multitude of collection means. This is made even more critical by the likelihood that at least some of the collected information will be deliberately deceptive in nature.

The Soviet answer to this perplexing problem is to continue to create a ubiquitous and comprehensive intelligence-gathering network, which cross-references data from numerous sources and relies on the brain and judgement of the trained analyst to distinguish patterns and meaning from the collected data. This demands sharply centralized control and direction over an articulated intelligence system, extending unbroken from STAVKA to battalion level. Analysis nodes at each level,

staffed with well-trained analysts, must operate in tandem, in close cooperation with respective operations departments and sections if the resulting intelligence is to be of any relevance. Soviet analysts must employ automation to simplify analysis, and redundant communications are essential to provide timely processing and use of intelligence data. In short, the Soviets today stress the quality of intelligence rather than the quantity of information. They believe small amounts of accurate data, combined with sound human judgement, more than outweigh the value of vast quantities of raw information collected by numerous sophisticated systems but subject to weak analysis.

As we move into the 21st Century and as weaponry develops to a point which we cannot now determine, the quality approach to intelligence operations will become ever more critical. Man and his judgement, however, will still be the key ingredient in the intelligence equation.

Endnotes

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3. R. G. Simonian, "Strategicheskaya razvedka" [Strategic razvedka], SVE, 7:552.
4. R. G. Simonian, "Operativnaya razvedka" [Operational razvedka], SVE, 6:52.
5. R. G. Simonian, "Takticheskaya razvedka" [Tactical razvedka], SVE, 7:640.
6. Simonian, "Razvedka," 32.
7. Ibid.
8. "Rekognostirovka" [Reconnoitering], SVE, 7:602.
9. Raymond L. Garthoff, "The Soviet Intelligence Services," The Soviet Army, (Suffolk, England: Richard Clay and Co. Ltd, 1956), 265-275; Victor Suvorov, Inside the Red Army, (NY: Macmillan Publishing Co., Inc., 1982), 92-99. See also extensive wartime German documentation including, "Die Organisation des Sowjet Nachrichtendienstes im Kriege, Oktober 1943" [The Organization of the Soviet Intelligence Service in the War, October 1943], Abteilung Fremde Heere Ost H 3/1850 NAM T-78/677, which provides details of the organization and structure of Soviet intelligence throughout the entire military structure and confirms both Garthoff's and Suvorov's general data.
10. V. A. Kiselev, "Pokhodnyi poriadok" [March formation], SVE, 6:482.
11. N. N. Znobin, E. V. Ivanov, "Razvedyvatel'nyi otriad" [Reconnaissance detachment], SVE, 7:39.
12. "Razvedyvatel'nyi dozor, [Reconnaissance patrol], SVE, 7:38-39.
13. V. I. Beliakov, "Avangard" [Advance guard], SVE, 1:12-13.
14. "Golovnaya pokhodnaya zastava" [Advance party], SVE, 2:592-593.
15. "Bokovaya pokhodnaya zastava" [Flank party], SVE, 1:548; "Tylovaia pokhodnaya zastava" [Rear party], SVE, 8:158.

16. "Otriad obespecheniia dvizheniia" [Movement support detachment], SVE, 6:169-170.
17. "Khimicheskii razvedyvatel'nyi dozor" [Chemical reconnaissance patrol], SVE, 8:374.
18. "Storozhevoi otriad" [Outpost detachment], SVE, 7:547.
19. V. G. Reznichenko, G. D. Ionin, N. K. Grishkov, A. N. Tiunaev, "Boevoi poriadok" [Combat formation, SVE, 1:530.
20. Ibid.
21. "Obkhodiashchii otriad" [Enveloping detachment], SVE, 6:676.
22. V. A. Bulatnikov, E. D. Grebish, N. N. Fomin, M. M. Kholodov, "Desant" [Desant], SVE, 3:152.
23. Ibid.
24. "Podvizhnyi otriad zagrazhdenii" [Mobile obstacle detachment], SVE, 6:374.
25. FM 100-2-3, Soviet Army Troops Organization and Equipment, (Washington, D.C.: Headquarters, Department of the Army, 16 July 1984), 4-67. Hereafter cited as FM 100-2-3.
26. Ibid., 4-15. Depth of troop razvedka at division and regimental level varies with a number of circumstances. Soviet sources underscore the increased reach of artillery and depth of battle and state:

Therefore the forces of razvedka now must be directed at revealing important enemy objectives throughout the entire tactical and close operational depth of the defense in the sector of the forthcoming offense."

By definition, this means from 40 to about 100 kilometers deep. See O. Kulishev, "Sovershenstvovanie sposobov vedeniia voiskovoi razvedki" [Perfecting the means for conducting troop razvedka], VIZh, No. 6 (June 1980), 33.
27. R. G. Simonian, "Razvedka boem" [Reconnaissance in force], SVE, 7:30-34.
28. "Artilleriiskaia razvedka" [Artillery razvedka], SVE, 1:267.
29. Ibid., 268. See also "Artilleriiskaia instrumental'naia razvedka" [Artillery instrumental razvedka], SVE, 1:265. The Soviets employed artillery instrumental razvedka extensively beginning in late 1942. By that time, they were able to detect accurately well over fifty percent of existing targets in the depth of enemy tactical defenses. See D. M.

Glantz, Soviet Operational Intelligence (Razvedka) to 1943, (Ft. Leavenworth, KS: Soviet Army Studies Office, 1988).

30. FM 100-2-3, 4-47, 4-55.

31. Z. Czarnotta, "Integration of Reconnaissance and Fire," Przegląd Wojsk Lądowych [Ground Forces Review], No. 5 (May 1987), 16-26. Translated by Dr. Harry Orenstein, SASO.

32. "Inzhenernaia razvedka" [Engineer razvedka], SVE, 4-536.

33. FM 100-2-3, 4-70, 4-15, 4-17.

34. "Radiatsionnaia i khimicheskaia razvedka" [Radiation and chemical razvedka], SVE, 6:663.

35. FM 100-2-3, 4-67, 4-19, 4-118.

36. M. M. Danilevsky, "Vozduzhnaia razvedka" [Air razvedka], SVE, 2:282.

37. M. M. Danilevsky, "Razvedyvatel'naia aviatsiia (RA)F" [Reconnaissance aviation (RA)], SVE, 7:35.

38. Danilevsky, "Vozduzhnaia," 283. For Soviet success with aerial photography and the systems they employed, see D. M. Glantz, Soviet Operational Intelligence (Razvedka) to 1943.

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40. FM 100-2-3, 4-124. Numbers of aircraft based upon wartime figures and data in Contact 2 I Br Corps Intelligence Training Coordination Coll (CITCC), 7th Intelligence Company, Intelligence and Security Group (Germany), 1984, 13.

41. "Agenturnaia razvedka" [Agent razvedka], SVE, 1:95.

42. "Spetsial'naia razvedka" [Special razvedka], SVE, 7:493.

43. "Voiska spetsial'nogo naznacheniiia" [Special purpose forces], SVE, 2:326.

44. D. M. Glantz, Soviet Operational Intelligence (Razvedka) in the Vistula-Oder Operation (January 1945), (Ft. Leavenworth, KS: Soviet Army Studies Office, 1988); for further details, see "Die Organisation des Sowjet Nachrichtendienstes im Kriege" [The Organization of Soviet Intelligence Service in the War], Abteilung Fremde Heere Ost, October 1943, NAM T-78/677.

45. F. L. Kurlat, L. A. Studnikov, "Brigada osobogo naznacheniia" [Special designation brigadel], Voprosy istorii [Questions of history], No. 9 (September 1982), 95.
46. Voyna v tylu vraga 1 v. [War in the enemy rear, Part 1], (Moscow: Izdatel'stvo politicheskoi literatury, 1974), 115. These units are also listed in the order of battle of the Soviet Southwestern Front found in Sbornik materialov po izucheniiu opyta voiny No. 6 aprel'-mai 1943 g [Collection of materials for the study of war experience No. 6 April-May 1943], (Moscow: Voenizdat, 1943); Sbornik materialov po izucheniiu opyta voiny No. 8 avgust-oktiabr' 1943 g [Collection of materials for the study of war experience No. 8 August-October 1943], (Moscow: Voenizdat, 1943). Both volumes classified "secret."
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52. V. Ia. Grankin, "Radiolokatsionnaia razvedka (RLR)" [Radio-location razvedka (RLR)], SVE, 7:6.
53. Ibid.
54. Glantz, Soviet Operational Intelligence (Razvedka) in the Vistula-Oder Operation, 77-83.
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56. Contact 2, 14; FM 100-2-1. The Soviet Army Operations and Tactics, (Washington, D.C.: Headquarters, Department of the Army, 16 July 1984), 15-2.
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58. "Rekognostsirovka" [Personal reconnaissance], SVE, 7:102.

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60. Ibid., 617.

61. Ibid. For more detail of reconnaissance-strike complexes, see M. Vego, Soviet Ground-Based and Air-Based Recce-Strike: Theory and Practice, (Ft. Leavenworth: SASO, 1989), draft manuscript.